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Attorney Docket No.: DMJ 2-002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	)
Dumont M. Jones	)
Serial No.: 10/706,352	) Examiner Kimberly M. Lovel
Filed: November 12, 2003	) Group Art Unit 2167
For: "Document Search Method With Interactively Employed Distance Graphics Display"	)

COMMISSIONER OF PATENTS
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ALEXANDRIA, VA 22313-1450

DECLARATION UNDER 37 CFR 1.132

Dumont M. Jones and Vadim M. Koganov declare as follows:

1) That they are the inventors named in the above-identified application for United States patent;
2) That their curriculums vitae are annexed hereto as an Exhibit A;
3) That they have reviewed the Office Action developed in connection with the above-identified application which was mailed May 18, 2006;
4) That certain of the steps of method claim 1 of the application have been rejected with respect to a published application for United States patent No. US2003/0135513 by Quinn, et al, filed August 27, 2002 (Quinn, et al.);
5) That Quinn, et al., relies on Provisional application No. 60/344,664 filed on August 27, 2001 (the Provisional), copy of which is annexed hereto as Exhibit B;
6) That the Examiner has applied Quinn, et al., in rejection of claims 1, 5, 13, 16 and 17 identifying in each component of rejection paragraph or paragraphs in Quinn, et al., which is said to support such rejection;
7) That they have compared those paragraphs in Quinn, et al., cited by the Examiner with the Provisional and are of the considered opinion that the Provisional is not descriptively supportive of those paragraphs;
8) That with respect to the introductory paragraph of claim 1 the Examiner has indicated that Quinn, et al., discloses a method for evaluating the text content of a database;
9) That a fundamental difference is present between the instant invention and Quinn, et al. in that the present invention is a searching method iteratively developing search questions and rules whereas Quinn, et al., is building a text database utilizing keyword attribute searches of the entries and is not concerned with a method for generating or iteratively generating questions utilized to effectively search a database;

10) That step (b) of claim 1 calls for gathering documents from said database into said system and the Examiner has cited paragraph 0040, lines 1- 4 of Quinn, et al., as representing such step, and that paragraph 0040 employs four predefined attributes, which are used to construct a database, while in contrast step (b) gathers documents from a pre-constructed database into a computer system with no attributes for searching the documents;

11) That the Provisional is not seen to descriptively support paragraph 0040;

12) That step (c) which provides for normalizing the gathered documents has been rejected with respect to paragraph 0055, lines 1-5 of Quinn, et al. which employs the term "normalized" but describes the normalization of the aggregate of data and not normalizing each document as set forth in step (c);

13) That the subject of normalization is not mentioned in the Provisional;

14) That step (d) of claim 1 describes the fingerprinting of the gathered documents, and this step has been rejected under paragraph 0054, of Quinn, et al., which describes that as illustrated in Fig. 2, fingerprints are extracted for storage in text and fingerprint database and in contrast step (d) fingerprints documents in a given and unaltered database and, while the same term, "fingerprinting" is used, it has an entirely different meaning;

15) That the subject matter of paragraph 0054 with respect to fingerprinting is not present in the Provisional.

16) That step (e) provides for determining a text criteria with respect to the document population, the Examiner citing paragraph 0093, line 4-7 Quinn, et al., which describes the organization of a database with respect to predetermined fixed criteria and step (e) text criteria are utilized to ultimately iteratively develop a search question and not to construct a database;

17) That in rejecting steps (f) through (k) of claim 1 the Examiner has cited U. S. patent application publication No. US2005/0086238 by Nevin, III (Nevin);

18) That step (f) of claim 1 describes forming a net comprising at least two nodes associated by at least one interaction displayable at the display as two or more spaced apart nodes connected by an interaction, and the Examiner has identified Fig. 1 in Nevin as representing this net;

19) That Nevin provides a collection of nodes which are inter-associated by a relationship, while the nodes of the present application are associated with an interaction, specifically, an effective force that attracts documents with related content which is quite different from the relationship, the latter approach having been well known in the art for decades;

20) That step (g) of claim 1 describes the loading of text criteria into at least one of the nodes, the Examiner rejecting that step with respect to paragraph 0081 of Nevin which

describes an organization algorithm and not this (search) criteria being loaded into a node;

21) That step (h) of claim 1 sets forth that for each document of the database, there is calculated geometric relative distance from a node to derive one or more node attractors, and in rejecting this step the Examiner has identified paragraphs 0031 and 0185 of Nevin and commented that the connection strength of the length from one node to another is considered to represent the "relative distance";

22) That Nevin describes that predetermined attribute data is stored into nodes and these nodes are linked by relationships of variable lengths whereas step (h) provides that for each document of a database its geometric relative distance from one or more nodes is calculated and that there are no documents in Nevin by which such calculation may be carried out, Nevin teaching only graphics defining a relationship between nodes, whereas by contrast the graphics location of nodes in the present invention is merely a matter of convenience;

23) That step (i) of claim 1 sets forth a displaying of the net at the display in combination with one or more document symbols each representing a document located in correspondence with the calculated relative distance, the Examiner identifying paragraphs 0033 and 0084 and Fig. 2 of Nevin with respect to this step;

24) That there are no document symbols and calculated relative distance described or suggested in Nevin, which only describes a positioning and relative relationship between nodes;

25) That paragraph 0084 and Fig. 2 of Nevin represent an algorithm to determine what nodes belong together and once a net is developed by Nevin that is the final result, whereas by contrast, in the instant application the net is merely a platform for organizing documents and, as noted, Nevin does not display document symbols or as much as consider such an arrangement;

26) That step (j) provides for visually examining the display of the net and document symbol and this step is identified as being revealed at paragraph 0084, lines 14-17 in Nevin;

27) That Nevin is irrelevant with respect to step (j) inasmuch as there are no documents in Nevin and there is no display of document symbols;

28) That step (k) of claim 1 provides for determining from the document symbol locations at the display, those documents, if any, which are more likely to correspond with the text criteria and the Examiner has identified paragraphs 0313 and 0315 of Nevin commenting that the user determines which categories are considered to be good or bad;

29) That with respect to step (k), paragraphs 0313 and 0315 have no applicability, there being no determination with respect to document symbol locations at the display and

from those symbol locations determining if any are more likely to correspond with text criteria and that there can be no way to equate step (k) with Nevin;

30) That claim 3 describes that step (g) loads the text criteria into a positive designated one of the nodes and the Examiner has indicated that the claim is described at paragraph 0031 and 0083, lines 4-14 of Nevin, commenting that data is stored in the nodes; a node can have a positive position;

31) That as noted above, the present invention has no concern with the position of nodes and the technique of Nevin is not concerned with whether a node is positive or negative and, in particular, positively or negatively attracting certain textual content in the sense of the present invention;

32) That claim 4 describes that step (f) forms the net as comprising a positive designated node and a null designated node connected by an interaction and the Examiner, citing Nevin at paragraphs 0083, 0084, lines 4-14 and 0123 states that the last node is used as the null node and the nodes are connected by lines to demonstrate an interaction;

33) That a null node in accordance with the invention is a node which has no content in it and therefore attracts no documents at all whereas Nevin describes that, during data entry if you don't identify the node you are interested in, the program as a default convention will put the argument on the last node and that this has no resemblance to the utilization of a null node as taught in the present invention;

34) That claim 5 describes that step (e) determines text criteria as criteria document textual material and, referring to paragraph 0093, lines 4-7 of Quinn, et al., the Examiner has indicated that the different genres are considered to represent the text criteria;

35) That paragraph 0093 of Quinn, et al., describes an organization of database with respect to predetermined fixed criteria and there is searching in Quinn, et al., against fixed criteria and not to the using of document textual material as criteria;

36) That the Provisional describes a one-touch playlist wherein the user may select a single starting criteria such as artist, album, or genre but does not disclose any organization of data with respect to sorting and grouping by artist name, etc., as set forth in Quinn, et al.;

38) That claim 5 further provides that step (g) comprises the steps of (g1) normalizing the criteria document textual material, the Examiner identifying paragraph 0055, lines 1-5 of Quinn, et al., with respect thereto and the claim further sets forth the step (g2) fingerprinting the normalized criteria document textual material, the Examiner identifying paragraph 0054 of Quinn, et al., in that regard;

39) That normalization as described at paragraph 0055 of Quinn, et al., is of a different type, being concerned with such things as correction of spelling and the like commonly

referred to as data regularization or data rationalization and there is no suggestion of normalizing criteria document textual material;

40) That with respect to step (g2), Quinn, et al., does not suggest a normalized criteria document textual material which is fingerprinted;

41) That claim 6 provides that step (e) determines positive text criteria and negative text criteria with respect to a document population, the Examiner citing Nevin paragraph 0084, line 4-14 and that Nevin is not concerned with search criteria, let alone positive and negative criteria;

42) That step (f) of claim 6 provides for the formation of a net comprising one or more positive designated nodes, one or more negative designated nodes and one or more interactions, the Examiner citing paragraph 0084 of Nevin, lines 4-14 and as discussed above, Nevin does not use interaction between positive and negative nodes but uses relationships generally identified by node position;

43) That step (g) of claim 6 provides for the loading of positive text criteria into positive designated nodes and negative text criteria into negative designated nodes, and the Examiner has cited paragraph 0031 of Nevin and indicated that data is stored in the nodes, and while the data might be stored in nodes, it is stored for a different purpose than the present invention;

44) That step (h) provides for the calculation for each document of the database its geometric relative distance from both positive nodes and negative nodes and the Examiner has cited paragraphs 0031 and 0185 of Nevin commenting that the connection strength of the link from one node to another is considered to represent relative distance and the Examiner fails to observe that the step at hand is one wherein relative distance is calculated with respect to documents and nodes, not between nodes as described in Nevin, Nevin not being a search technique, or a document organization technique, but a technique for graphically representing entity-relationship diagrams;

45) That step (l) of claim 8 provides for retrieving the identification of those documents resulting from step (k), and step (m) of claim 8 provides for viewing one or more of the documents identified in step (l) and determining the quality of the match thereof with step (e) text criteria, and the Examiner has cited paragraphs 0313 and 0315 of Nevin with respect thereto;

46) That with respect to claim 8, the paragraphs of Nevin cited has no relationship to documents, are not describing the same operation or even a similar operation and are not evaluating the quality of the match of documents with text criteria;

47) That step (n) of claim 9 provides for the identification of new text criteria as a result of step (m) determination of insufficient quality of match, step (o) of claim 9 provides for the adding of the identified new text criteria to the step (g) text criteria loaded in the positive

node, and step (p) of claim 9 reiterates steps (h) through (m), the Examiner citing paragraphs 0313 and 0315 of Nevin;

48) That with respect to claim 9, Nevin identifies the properties of nodes precisely and in advance whereas by contrast new text criteria is determined to improve a search question and the developed new test criteria is loaded into the positive node whereupon there is a reiteration of steps (h) through (m) and Nevin is not concerned with documents and the searching of their contents or any other kind of interactive process;

49) That step (q) of claim 10 describes that subsequent to step (m) that identification and viewing a list of features common to those documents the identification of which was retrieved in step (l), a step (r) identifying a new text criteria in correspondence with step (q) and viewing features common to those documents, the identification of which was retrieved in step (l), a step (s) of adding the identified new text criteria to the step (q) text criteria loaded into the positive node, and step (t) reiterating steps (h) through (m), the Examiner citing paragraphs 0313 - 0316 of Nevin;

50) That claim 10 looks to the extraction of common features and an iterative process which functions to improve the search by improving a question or rule and Nevin has nothing to do with documents but does deal with similarities or relationships but between nodes and not documents and interactions associated with nodes, and further there is no search in Nevin and no criteria addition to improve a search and lastly Nevin doesn't carry out the steps (q) through (s) and certainly does not reiterate them as set forth at step (t);

51) That step (k1) of claim 11 provides for determining additional text criteria where the document symbol locations are not likely to correspond with such text criteria, and step (k2) provides for adding additional text criteria to the text criteria determined at step (e), the Examiner citing paragraph 0313-0316 of Nevin;

52) That with respect to claim 11, Nevin is not addressing the subject matter of documents nor the search associated with documents nor does Nevin address the subject matter of adding additional text criteria to improve a search;

53) That with respect to claim 12, step (l) is carried out by drawing at the display of a net a boundary defining region of the document symbols, the Examiner citing paragraph 0320 of Nevin and indicating that the boundary region is determined by the available screen space;

54) That Nevin at paragraph 0320 is describing the accommodation of a need for arithmetically changing the shape of a net within the space confines of the display, whereas claim 12 selects a grouping of documents by drawing boundaries on the display around document symbols and there are no documents in Nevin nor a technique for selecting them;

55) That step (f) of claim 13 provides for selecting a document attribute to be correlated and the criteria for establishing an attribute value match, and the Examiner cites paragraph 0093 lines 4-7 with the commentary that the different genres are considered to represent the text criteria;

56) That step (f) of claim 13 is associated with two delimitedregions at the display that is further associated with step (g) determining value matched pairs, and paragraph 0093 of Quinn, et al., has nothing to do with the procedures of claim 13, Quinn, et al., speaking of three clearly defined attributes as opposed to the instant method wherein text search attributes are employed which are not so predetermined and could represent anything from a portion of a word to an entire book;

57) That step (g) of claim 13 provides for determining the presence of one or more document attribute value match pairs between first and second regions and the Examiner has cited paragraph 0094 of Quinn, et al., stating that grouping in the attributes is considered to represent creating matched pairs, and there are no documents in Quinn, et al., there are no regions in Quinn, et al., and there are no document attribute value matched pairs in Quinn, et al;

68) That paragraph 0094 of Quinn, et al., is not supported in the Provisional;

69) That step (b) of claim 13 provides for forming one or more nets, each comprising at least two nodes associated by at least one interaction, one or more of the nodes representing an evaluation criteria and one or more being viewable at the display, and the Examiner has cited Fig. 1 and paragraph 0081 of Nevin, and Nevin stores all of the data in nodes whereas document criteria are stored in the nodes of the instant invention and further with respect to the entirety of claim 13 there is nothing in Nevin describing how two nets would interact with each other, that is two nets are used together to do a searching feature that neither net could do alone;

70) That step (c) of claim 13 provides for treating documents to have an attribute value and calculating for each document a geometric relative distance with respect to node criteria and displaying corresponding document symbols, the Examiner citing paragraphs 0031 and 0185 of Nevin, stating that the connection strength of the length from one node to another is considered to represent relative distance;

71) That the Examiner's analysis of step (c) of claim 13 is incorrect for reasons above stated and particularly because Nevin has nothing to do with documents nor document symbol nor calculation of a relative distance with respect to a node criteria;

72) That step (d) of claim 13 provides for delimiting at the display a first region of the document symbols, and the Examiner cites paragraph 0031 and Fig. 1 of Nevin stating that linking the nodes together is considered to represent delimiting and the connection of node 1 to node 2 is considered to represent a first region;

73) That with respect to step (d) of claim 13 there is no concept of region at all in Nevin and the Examiner's observation that connecting two nodes together constitutes a region is simply incorrect, and the Examiners indication that linking the nodes together represents delimiting is incorrect and there are no document symbols in Nevin to establish a delimited region;

74) That step (e) of claim 13 provides for delimiting at the display a second region of document symbols and the Examiner has applied the same rejection as provided with step (d) and the Applicants submits that there are no document symbols in Nevin, there are not two regions in Nevin which are delimited, and the linking of node 2 to node 3 does not constitute a region of document symbols;

75) That step (h) of claim 13 displays correlations as are developed in connection with step (g) as they exist between first and second regions, and the Examiner's commentary citing paragraph 0033 stating that the display of nodes based on a location calculated from force parameters is considered to represent displaying correlations is simply and totally incorrect, Nevin being concerned with entirely different subject matter where for correlation two or more nodes are bound closely in space is unrelated to the invention where correlation is concerned with showing how two nets work together to show how a set of documents are closely grouped within two or more organization systems (nets);

76) That claim 14 provides that step (d) provides a first region extending over more than one net and includes a step (d1) of mapping the first region to a first document set by selecting the union or intersection of documents on different nets, and the Examiner has cited paragraph 0031 and Fig. 1 of Nevin without comment and there are no document symbols in Nevin, there is no searching in Nevin, there is no first region in Nevin, there is no first region extending over more than one net in Nevin, there is no suggestion of mapping of the first region to a first document set by selecting the union or intersection of documents on different nets in Nevin;

77) That claim 15 is similar to claim 14 but provides the second region extending over more than one net and includes the step of mapping the second region to a second document set by selecting the union or intersection of documents on different nets, and the Examiner has cited the same components of Nevin, and the same response provided with respect to claim 14 also applies to claim 15 in that no regions over nets, and no mapping by selecting the union or intersection of documents on different nets so much as suggested in Nevin;

78) That claim 16 provides that step (f) selects the criteria for establishing an attribute value match by defining an attribute value tolerance, and the Examiner has cited paragraphs 0009 and 0093, lines 4-7 of Quinn, et al., stating the different genres are considered to represent the text criteria;

79) That paragraph 0009 of Quinn, et al., is background history that efforts in the past have weighted some joint attributes to find similarity and that the paragraph is not supported in the Provisional, and further, it may be observed that the attributes discussed are predetermined established facts and thus, there can be no attribute value tolerance as provided in claim 16;

80) That claim 17, dependent upon claim 16 provides that step (g) determines the presence of a document of an attribute matched pair by determining whether the attribute value of a document in the first region is equal to the attribute value of a document in the second region within the attribute value tolerance, and the Examiner again has referenced paragraphs 0009 and 0093 of Quinn, et al.;

81) That there are no first and second regions suggested in Quinn, et al., and as is quite apparent, there is no determination of the presence of a document attribute matched pair between regions within an attribute value tolerance as additionally discussed above in connection with claim 16;

82) That claim 18 provides that step (d) is carried out by providing a computer generated line or lines visible at the display, and the Examiner has cited paragraph 0083 of Nevin;

83) That claim 18 with respect to step (d) draws computer generated lines delimiting method display of first region of document symbols, and that there are no document symbols nor are there regions suggested in Nevin, Nevin only describing the positioning of lines between nodes which basically are representations of some predetermined relationship between two nodes, an arrangement that has no relevance to claim 18;

84) That claim 19 provides that step (e) is carried out by providing a computer generated line or lines visible at a display, the Examiner again citing paragraph 0083 of Nevin and the Declarants reassert the response given in connection with claim 18 to this rejection;

85) That claim 19 provides that step (e) which delimits a second region of document symbols is carried out by providing a computer generated line or lines visible at a display, and the Examiner has cited paragraph 0083 of Nevin which, as discussed in connection with claim 18 provides a line which basically is a representation of some predetermined relationship between two nodes which has no suggestion of delimiting a second region of document symbols as well as no suggestion of document symbols at all, and no suggestion of delimiting by computer generated lines about these document symbols;

86) That claim 20 provides that step (h) is carried out by providing a visible line at the display connecting two document symbols and representing the correlation developed in connection with step (g) of claim 13 and the Examiner has cited paragraph 0083 of Nevin and, thus, the commentary given above in connection with claims 18 and 19 applies, but now with respect to providing a visible line between two document symbols

representing a correlation, the present invention having documents and nodes, Nevin having only nodes;

87) That claim 21 provides that step (f) selects said document attribute to be correlated and the criteria for establishing an attribute value match through selecting the document attribute or document identification and step (g) identifies the same document in each of the first and second regions as a correlation and the Examiner has cited paragraph 0093, lines 4-7 and 0094 of Nevin in carrying out the rejection;

88) That claim 21 looks to see where a particular document symbol appears in two different kinds of organizations, and Nevin concerns no document symbols, no regions and provides no discussion of correlation but only the relationship between nodes, not document symbols;

89) That they observe that claims 22-24 have been rejected under §103 of the Patent Statute as being unpatentable over United States application publication No. 2004/0078366 to Crooks, et al., (Crooks, et al.) in view of Nevin and in commenting upon the rejection, the Examiner has stated that Crooks, et al., discloses a method for searching the text content of a document database with respect to a population of documents and that this observation is in error in that the database of Crooks, et al., is one of rules, i.e., medical terms and not the text content of documents;

90) That Crooks, et al., is an approach wherein there is parsing of a health care order based on the parsing, identification and interpretation of specific keywords, terms and abbreviations, wherein essentially a string-based order is parsed and "normalized", e.g., matched and replaced input with actual terms, to determine specific components such as drug dosage whereupon a distance is assigned using the well-known technique which identifies how many character changes had to be made to achieve a match with the rule-based database, Crooks, et al., not fingerprinting nor comparing fingerprints or employing interactivity or a graphical component;

91) That with respect to step (b) of claim 22 identifying the population of documents to be searched, there is no search of documents but there is a search of a database of rules and only for the purpose of interpreting a medical order, no attempt being made to search for a document, or place the document in any type taxonomy;

92) That step (c5) provides for setting an offset and factor for numeric class, for instance, determining whether a number is within a particular range, the step representing an aspect of achieving a representation of text which is searchable as opposed to the Crooks, et al., approach which seeks an accurate grammatical representation;

93) That step (c8) provides that for each accessed, W, which is a number, converting such a number into a sequence of word numbers, WN, and normalizing these word numbers for

fingerprinting, the Examiner citing paragraph 0024, lines 1-28 of Crooks, et al., and Crooks, et al., has nothing comparable to normalizing word numbers as, WN;

94) That step (c9) of claim 22 provides for the marking the position and link of each, W, or normalized word number, WN, and the Examiner has cited paragraph 0026, line 31 et seq., of Crooks, et al.;

95) That Crooks, et al., at the above cited paragraph and line is concerned with an attempt to find an approximate match with the rule database, when an exact one cannot be found, the number of letters required to be changed to match a rule term in the database representing a distance, and such an approach has no relationship to the recitation of step (c9);

96) That step (c10) of claim 22 provides that for each, W, or normalized, WN, completing the normalization by reiterating steps (c8) and (c9), and the Examiner has cited paragraph 0026, lines 10-12 of Crooks, et al., with the commentary that refining is considered to represent repeating;

97) That with respect to the Examiner's commentary concerning step (c10) and the term "refining", the present invention is doing an iterative process to achieve optimal normalization while Crooks, et al., strives to obtain word matches and then refine by eliminating the junk, and there is no relationship between these methods nor their purpose;

98) That step (d) of claim 22 provides for fingerprinting the normalized documents, the Examiner citing paragraphs 24-26 of Crooks, et al., and that there is no fingerprinting whatsoever taught by Crooks, et al.;

99) That step (e) of claim 22 provides for forming one or more nets each comprising at least two nodes, one or more said nodes representing an evaluation criteria, said one or more nets exhibiting two or more spaced apart nodes connected by one or more interactions, the Examiner citing Fig. 1 of Nevin, and he reiterates commentary made in connection with claim 1 at step (f);

100) That step (f) of claim 22 provides that for each normalized document, calculating its geometric distance from a said node, the Examiner repeating the rejection made in connection with step (h) of claim 1 and he reasserts his response concerning step (h) of claim 1;

101) That step (g) of claim 22 provides for displaying one or more nets at the display in combination with one or more document symbols representing a said document located in correspondence with said calculated relative distance, the Examiner citing the same component of Nevin as cited with respect to step (i) of claim 1 and he reasserts his response to that rejection in response to this rejection;

102) That the final step of claim 22 provides for determining from said document symbol locations at said display, if any, those documents which are more likely to correspond with said evaluation criteria, the Examiner repeating the rejection asserted in connection with step (k) of claim 1 and the argument set forth therein is repeated for this rejection;

103) That claim 23 provides for steps (c8.1) through (c8.8) describing in detail step (c8) of claim 22 and all being rejected based upon paragraph 0030 - 0032 of Crooks, et al., and that Crooks, et al., neither carries out nor suggests any of these steps;

104) That more specifically with respect to claim 23, step (c8.1), Crooks, et al., merely determines the presence of a date and uses it directly while the present step is developing a record that can be used for searching, Crooks, et al., carrying out no conversion to a float or integer and with respect to step (c8.2) applying an offset and factor to improve fingerprinting which Crooks, et al., does not carry out whatsoever;

105) That with respect to step (c8.3)–(c8.8) there is no similarity or purpose in any way related to the teachings of Crooks, et al.;

106) That claim 24 describes that step (c8.3) further comprises the step (c8.3.1) setting the precision of, P, the normalized word number, WN, and step (c8.8) is carried out until the number of said successive positions, S, deriving said second component equal the value of said precision, R, the Examiner citing paragraphs 0030-0032 of Crooks, et al., in rejecting the claim;

107) That with respect to claim 24, Crooks, et al., is not utilizing precision, presumably for good reason, that one would not wish to use that approach in dealing with medical applications and both components of this claim utilize a precision function;

108) That all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like, so made, are punishable by fine, or imprisonment, or both, under § 1001 of Title 18, and that such willful false statements may jeopardize the validity of the application or any document resulting therefrom.

Further Declarants sayeth naught.

Date August 15, 2006

Dumont M. Jones

Date August 15, 2006

Vadim M. Kogarov

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Summary: **Information discovery and analysis**
- **Consulting, software design and development**
- **Materials/chemical engineering, and business applications**

History:

2002-Present: Principal, Proximate Technologies, LLC
- Chief architect of "Application-Driven Chemistry" software platform for chemical and materials design–allows designers to move from design requirements to physical materials, using information discovery and optimization techniques.
- Generated new and existing candidate chemistries for an acoustical coupling application.
- Generated new and existing candidate coating chemistries for a polymer-coated silica fiber application requiring low refractive index.
- Co-authored new model for ascertaining whether certain compounds will exhibit single- or multi-phase behavior.
- Author or co-author of various other physical property models, details available on request.
- Primary design of software to facilitate visual discovery and analysis of generic data entities, including unstructured text documents. Associated patent application filed and published.
- Information discovery and analysis consulting for chemical-design and business applications. Current activities include consulting for materials informatics data transformation and structure-property modeling. Application examples available on request.

1993-Present: Principal, Black Bear Software Engineering, LLC
- Design and development of Windows and UNIX software for visualization of complex data systems, and various e-commerce and business components.
- Report-server automation, integration and security, with an emphasis on Actuate reporting systems.
- Design and analysis of predictive statistical models for materials design.

1989-1993: Software Development Scientist, Tripos Associates, Inc., St. Louis, MO.
- Design and development of the Tripos Open Force Field System.
- Development of Quantitative Structure-Property Relationships (QSPR) for chemical properties and related software.

1987-1989: Postdoctoral Research Associate, University of Massachusetts, Amherst, MA.
- Conducted theoretical studies of polymer solutions and suspensions, resulting in 3 technical publications in the open literature.

Technical Skills:
- Information analysis and knowledge discovery.
- Predictive statistical model design.
- Software design and implementation: Windows/UNIX, languages as required.

Education:

- Ph.D. in Chemical Engineering, University of Minnesota, Minneapolis, MN; December, 1986. Advisor: Prof. John S. Dahler. Dissertation Title: On the Theory of Laser-Assisted Collision Processes.
- B.S. in Chemical Engineering, University of Wisconsin at Madison, Madison, WI; September, 1985. Advisor: Prof. M. Morari. Research topic: Organic synthesis.

Publications/ Presentations:

- 15 articles in the open literature. Recent publications (2005,2006) concern models for evaluating whether inorganic compounds will be single- or multi-phase, and an outline of the Application-Driven Chemistry platform mentioned above.
- Several articles in press concerning the development of informatics algorithms and platforms for materials design (crystal structure; creation of luminoscity structure-property relationships, structures for accurate storage and retrieval of materials properties in databases, and correct reduction of heterogeneous materials data sets).

Vadim Koganov

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STRENGTHS

- 11 years experience in information systems architecture, design and development with emphasis on enterprise systems and applications.
- Extensive knowledge of the object-oriented development process.
- Microsoft Certified Solution Developer (MCSD, MCP).
- MBA degree in Technology Management

Languages: C#, VB.Net, Java, Visual Basic, XML ,XSLT, SQL, DHTML, JavaScript, C++, etc
Operating Systems: Microsoft Windows 2003/2000/NT/ 9x, Linux, UNIX.
Development Tools: MS Visual Studio 2003/2000/6.0, BizTalk Server 2002/2004, Jbuilder, UML/Rational Rose, MS Visual Source Safe, etc

EXPERIENCE

Software Architect/Developer (Ind.) March 2000 – present
Silicon Motif, Inc., Columbus, OH

Major Clients:
Ohio Department of Education, Columbus, OH
Solution Architect

- Architected, designed and led development of a brand-new integrated suite of applications composing a state-wide educator information and licensure system; was solely responsible for the development of the overall technical architecture and design;
- Designed, developed specifications for and oversaw the development of over 30 .Net Web Services composing the business tier of the Service-Oriented Architecture for the said educator information and licensure system;
- Architected and developed a set of enterprise infrastructure components, including reliable logging and configuration-based navigation;
- Designed and led development of over 10 large-scale ASP.Net web applications;
- Provided technical expertise, direction and leadership to the team of five developers;
- Designed and developed a large-scale data conversion and delivery system that performs transformation of statistical data from raw XML and Oracle database queries to a multitude of user-viewable documents, including HTML, SpreadsheetML, and native Microsoft Excel files;
- Architected and implemented monitoring services allowing on-demand data conversion and presentation through using a set of converter components;
- Developed a set of complex XSLT transformations;
- Provided technical know-how and direction to the development team ;

Tools: VS.Net 2003 /C#, XSLT, Oracle 9i, DHTML, XML-Spy 2005, Log4net, Aspose.Excel
Environment: Windows 2003/XP

American Health Holding, Inc., Columbus, OH
System Architect

- Architected, designed and developed an integrated suite of healthcare applications (Utilization Review, Case Management, etc) that serves as the main mission-critical system for the nationwide corporation;
- Designed and implemented a .Net Remoting-based data access infrastructure now utilized by several of the enterprise applications;
- Designed and developed a custom .Net-based XML rules engine to support medical necessity

continued...

EXPERIENCE (continued)

decision making process and workflow;
- Developed architectural approach and implemented a complex trading partner integration (import/export) solution (Microsoft BizTalk Server 2002);
- Architected and developed a complete electronic document generation, editing, and storage system with a web-based front end;
- Designed and developed a customizable thin-client reporting system;

Tools: VS.Net 2003 /C#/ VB.Net/ASP.Net, MS BizTalk Server 2002, MSMQ, ASP, MS XML/XSLT, DHTML, MS SQL Server 2000, MS Visual Basic 6.0, Crystal Reports
Environment: Windows 2000/2003/XP

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- Designed, developed and implemented an n-tier GISB-compliant electronic data delivery system, including custom HTTP data upload mechanism, dispatch system service, and a management and administration web application.
- Integrated a variety of formats including multiple EDI transaction sets utilizing BizTalk Covast EDI Accelerator;
- Designed and implemented multiple complex processes utilizing MS BizTalk 2004 Orchestration;

Tools: VS.Net 2003 /C#/, MS BizTalk Server 2004, XML/XSLT, MS SQL Server 2000
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- Developed architectural approach and implemented the data repository and the server-side application for information discovery and visualization solution;
- Designed and developed a Web-based query building and execution tool for interaction with and management of a complex data search engine;
- Co-authored a state-of-the-art data analysis solution (application for U.S. Patent Serial number 10/706352 - "Document Search Method with Interactively Employed Distance Graphics Display.")

Tools: VS.Net 2003/C#/ VB.Net, C++, MS XML/XSLT, MS SQL Server 2000, MS Visual Basic 6.0
Environment: Windows NT/2000/2003/XP

Charles River Associates, Inc. – Boston, MA
System Architect
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- Tuned and optimized the performance of the SQL Server tax data repository;
- Developed a dynamic reporting system capable of aggregating and summarizing large volumes of data produced by the tax simulator;

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EXPERIENCE (continued)

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- Designed, developed, and deployed a distributed order management and fulfillment solution to support online ordering;
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- Architected and implemented an extensible intranet security architecture;

Tools: C#/VB.Net, Java 2, Sun J2EE, JMS, Apache Xerces, Exolab Castor, XML-RPC, XML/XSLT, DHTML, MS SQL Server 7.0/2000, SOAP, MS Visual Basic 6.0, Visual Studio 6.0
Environment: Linux, Windows NT/2000

Technical Project Leader January 1998 – October 2000
Compuware Corporation, Columbus, Ohio.
- Designed and developed electronic bill presentment and payment system based on CheckFree I-Solutions engine;
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Environment: Windows NT;

Software Engineer/System Administrator December 1996 – January 1998
American Heartland, Inc., Columbus, Ohio.
- Architected and developed set of front-end applications in VB 5.0;
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- Developed a 3-tier intranet reporting system;
- Created and supported company's World Wide Web site with online order processing system;

Tools: SQL Server 6.5, RDO, ASP, Visual Basic 5.0, Visual InterDev, Java, JavaScript, VBScript
Environment: Windows NT/95

DBA/Network Administrator April 1995 – December 1996
American Heartland, Inc., Columbus, Ohio
- Designed, installed and administered Windows NT/95 network.
- Developed relational database schemas.
- Designed, administered and updated information systems based on Microrim R:Base RDBMS

Tools: MS Fox Pro, Microrim R:Base, Lantastic
Environment: Windows 3.1/95.

Software/Hardware Consultant 1994 – 1996
PhytoLife Sciences, Inc. Columbus, Ohio.
- Set up communications between the U.S. and Moscow, Russia
- Designed and implemented the corporate World Wide Web site

Environment: UNIX

EDUCATION

M.B.A., Concentration: Technology Management, GPA 3.82. 1999
Franklin University, Columbus, Ohio.
Thesis: Software Development Project Management.

B.S., Computer Science, GPA 4.0 1996
Franklin University, Columbus, Ohio.
President's Honors.

ADDITIONAL

U.S. Citizen,
Fluent Russian.

REFERENCES AVAILABLE UPON REQUEST

S&H Form: PTO/SB/16 (2-01)

PROVISIONAL APPLICATION COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION under 37 CFR 1.53(c).

Docket Number	1615.1016P	Type a plus sign (+) inside this box → +

INVENTOR(S)/APPLICANT(S)

LAST NAME	FIRST NAME	MIDDLE INITIAL	RESIDENCE (CITY AND EITHER STATE OR FOREIGN COUNTRY)
QUINN	Paul	W.	Kensington, CA
MANTLE	Michael	T.	San Rafael, CA
ROBERTS	Dale		San Anselmo, CA

TITLE OF THE INVENTION (280 characters max)

PLAYLIST AND MUSIC MANAGEMENT FOR DEVICES

CORRESPONDENCE ADDRESS

21171
PATENT TRADEMARK OFFICE

ENCLOSED APPLICATION PARTS (*check all that apply*)

- [X] Specification *Number of Pages* 4
- [ ] Application Data Sheet. See 37 CFR 1.76
- [ ] Drawing(s) *Number of Sheets* _____
- [ ] Other (specify) _____

METHOD OF PAYMENT (*check one*)

[ ] Applicant claims small entity status. See 37 CFR 1.27.	PROVISIONAL FILING FEE AMOUNT($)	$150.00
[X] A check or money order is enclosed to cover the Provisional filing fees		
[X] The Commissioner is hereby authorized to charge any underpayment of filing fees and credit any overpayment of filing fees to Deposit Account No. 19-3935		

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

- [X] No
- [ ] Yes, the name of the U.S. Government agency and the Government contract number are: _____

Respectfully submitted,

SIGNATURE _____ DATE 08/27/01

TYPED or PRINTED NAME J. Randall Beckers REGISTRATION NO. 30,358
(*if appropriate*)

PROVISIONAL APPLICATION FILING ONLY

gracenote.

Playlist and Music Management for Devices

Revision: 1-1-10813

Gracenote
2141 4th Street
Berkeley, CA 94710
www.gracenote.com

Description

The Gracenote Playlist and Music Management solution is a set of APIs, object code and reference designs for implementing playlist and music collection management functionality in internet connected and eCDDB powered devices. Gracenote's playlist and music management solution is powered by Gracenote's basic metadata – artist name, album name, track name, and genre information already present in the eCDDB database, providing users flexible methods for organizing playlists and viewing their music collection. The Gracenote solution provides a flexible and complete music management solution for devices.

General music industry knowledge and studies by Gracenote have concluded that a playlist is a very personal representation of each persons individual listening tastes. Automatic playlist generation based upon music similarities, tempo, or even style are rarely compelling or even suitable for listening use. To this end, Gracenote has focused its Playlist and Music Management solution on providing crucial playlist management functionality that allows for easy playlist personalization and editing.

Key Functionality

- Simplified one-touch playlist generation
- Artist/Album/ Genre playlist generation
- One-touch playlist editing
- Powered by CDDB

Components

- Extended embedded database for non-connected devices
- Playlist management object code ported to target OS
- APIs for integration with device display
- Reference design for playlist management interface
- Periodic updates to include new releases

Operation

The Gracenote Playlist and Music Management Solution enables end users to manage their collection of music through flexible tools and interfaces. The solution has been designed to enable the integration of the most critical playlist functionality seamlessly with existing device interfaces and displays. Reference designs are provided with the solution although an open API toolkit enables customization of deployment for specific device needs.

Because the Gracenote Playlist and Music Management system is integrated with eCDDB recognition services, application code is ported to your target OS at the time that the eCDDB port is done. In addition the related data required to power such playlist functionality is relatively smaller than other playlist solutions requiring only modest incremental data in the eCDDB database.

Playlist Creation
The Gracenote solution enables the creation of playlists is several different ways.

One-Touch playlist
Through selection of single starting criteria (i.e., an artist, album, or genre) a user can generate a playlist of like-minded music from the music available on their device with one push of a button. The like-minded music is powered by Gracenote's eCDDB metadata insuring a level of accuracy not found in typical ID3 tag reading solutions.

Artist Playlist
Through selection of a specific artist a user can create a playlist of all that artist's music on their device.

Album Playlist
Through selection of a specific album a user can create a playlist of the songs on that album.

Genre Playlist
Through selection of a specific genre, or one of Gracenote's 274 sub-genres, a user can create a playlist of all music that fits in that genre or sub-genre from the collection on their device.

Genre Mapping
If the user does not have enough tracks from the original selected genre to make up an entire playlist, the Gracenote solution utilizes genre mapping to select tracks from the closest related set of genres available in the users collection.

The example below illustrates how the genre playlist utilizes the original genre as a primary selection method and related genres as a secondary selection method:

Santana (Genre: Classic Rock) will find: The Doobie Brothers, The Moody Blues, The Eagles, Jefferson Airplane (all Classic Rock) **and** Los Lobos, Chris Perez Band (both Latin Rock)

Red Hot Chili Peppers (Genre: Funk-Rock) will find: Psychefunkapus, Living Colour, Fishbone (all Funk-Rock) **and** James Brown (Funk), Faith No More (Alternative Metal).

Morcheeba (Genre: Trip-Hop) will find: Portishead, Massive Attack (both Trip-Hop) **and** Brand New Heavies (Acid Jazz), Jurassic 5, Blackalicious (both Underground Hip Hop)

Playlist Management
The Gracenote solution enables end users to manage playlists prior to or during playback.

Playlist Add/Delete
During playback of any audio a specific artist, album, track or genre can be added to or deleted from an existing playlist.

Playlist Edit
Playlists can be edited at any time to add or delete artists, albums, tracks or genres.

Playlist Remove
Playlists can be removed at any time.

Playlist Save
Playlists can be saved and named enabling quick retrieval and playback

Transfer to device
The Gracenote solution includes APIs for recognizing MP3s via text matching against the file's ID3 tag at the time of transfer to the device. This eliminates the need for computationally expensive crawlers and insures that all music on the device can be accessed via the Gracenote Playlist and Music Management Solution with clean metadata and genre information.

Coverage and Scalability

The Gracenote solution differs from most other solutions available today in that it is built around the eCDDB recognition solution making it ideal for ripping/playing devices. Because there is no reliance on editorial content the solution includes coverage on any segment of the Gracenote database of over 300,000 artists, 900,000 albums, and 12,000,000songs.
As a result the solution is infinitely scalable without the need for editors to listen to and rate each song. New releases are entered into the system once they have been played sufficiently (often before release).

Requirements

Hardware

- Graphics or text display.
- eCDDB or internet enabled device

Update Entitlement

Updates to the playlist data set are delivered via the same mechanism and at the same time as updates to the eCDDB recognition database.

Attorney Docket No.: DMJ 2-002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	)
Dumont M. Jones	)
Serial No.: 10/706,352	) Examiner Kimberly M. Lovel
Filed: November 12, 2003	) Group Art Unit 2167
For: "Document Search Method With Interactively Employed Distance Graphics Display"	)

COMMISSIONER OF PATENTS
P. O. BOX 1450
ALEXANDRIA, VA 22313-1450

DECLARATION UNDER 37 CFR 1.131

Dumont M. Jones and Vadim M. Koganov declare as follows:

1) That they are the inventors named in the above-identified application for United States patent;
2) That their curriculums vitae are annexed hereto as an Exhibit 1;
3) That they have reviewed the Office Action developed in connection with the above-identified application which was mailed May 18, 2006;
4) That certain of the claims of the application have been rejected in connection with a published application for United States patent No. US2003/0135513 by Quinn, et al, filed August 27, 2002 (Quinn, et al.);
5) That Quinn, et al., relies on Provisional application No. 60/344,664 filed on August 27, 2001 (Quinn, et al. Provisional), a copy of which is annexed hereto as Exhibit 2;
6) That they are submitting a declaration under 37 CFR 1.132 in connection with the above Office Action in which they have demonstrated the inadequacy of support provided by the Quinn, et al., Provisional and in particular such demonstration is provided at paragraph Nos. 6, 7 11, 13, 15 and 36;
7) That they have been advised that the consequence of their analysis of the Quinn, et al., Provisional is that the Quinn, et al., effective date as a reference is an actual filing date of August 27, 2002;
8) That their application for United States patent serial No. 10/706,352 claims benefit of Provisional application No. 60/425,854, filed November 12, 2002;
9) That application for United States patent serial No. 10/706,352 is fully supported by Provisional application No. 60/425,854;

10) That they are entitled to the benefit of the filing date of November 12, 2002, a date well within one year of the valid filing date of Quinn, et al., which was August 27, 2002;

11) That the software implementing their invention has been referred to and continues to be promoted under the trade designation "InfoMap";

12) That annexed hereto as Exhibit 3 is a page 251 of a hardbound notebook with the handwriting of Dumont M. Jones describing InfoMap user scenarios and having a date which is redacted and is well before August 27, 2002;

13) That their company which is and has been identified as "Proximate Technologies, LLC" carries on the bulk of its correspondence and document development electronically;

14) That the company has utilized continuous backups on a business daily basis via a remote service since 2001, such service initially being called "Connected" and now referred to as "Iron Mountain";

15) That portions of the current Iron Mountain website are annexed hereto as an Exhibit 4;

16) That their company additionally utilizes and has utilized at least throughout 2002 an in-house electronic information backup procedure;

17) That the initial version of InfoMap was identified as "the Prototype" which was completed well before August 27, 2002;

18) That annexed hereto as Exhibit 5 is a colored schematic representation of a net as employed with the Prototype and that the node identified as "junk" Data developed into the "negative node";

19) That annexed hereto as an Exhibit 6 is a schematic representation of a net showing, in color-coded fashion the attraction of documents to three nodes of this net and that this net drawing was created well before August 27, 2002;

20) That annexed hereto as an Exhibit 7 is a tabulation employed with the Prototype illustrating nodes as columns showing document attraction in bar code and color coded fashion, such tabulation having been created before August 27, 2002;

21) That annexed hereto as an Exhibit 8 is a paper prepared by them well before August 27, 2002 describing the Prototype of the InfoMap invention prepared well before August 27, 2002 and reproducing Exhibit 7;

22) That the Declarants determined to make a presentation of the InfoMap system to Lexus/Nexus in Dayton, Ohio and, before August 27, 2002 commenced preparation

of a demonstration of the invention as well as a power point presentation describing the invention;

23) That annexed hereto as an Exhibit 9 are pages 264 and 265 of the hardbound notebook described in connection with Exhibit 3, carrying the handwriting of Dumont M. Jones which was utilized in a discussion between the inventors as to the development and use of the InfoMap Prototype and succeeding software;

24) That Exhibit 9 at page 264 shows at its center a net with circles below which is hand written the term "Detail" which would represent details in the text which would appear at the bottom of a screen and corresponds to the image of the InfoMap software as it currently exists;

25) That at the top of page 264 of Exhibit 9 is a sketch of a then existing net;

26) That at page 265 of Exhibit 9, is a listing of efforts to be undertaken by co-inventor Vadim M. Koganov, which listing includes the preparation of a provisional patent and that the date which is redacted is before August 27, 2002;

27) That annexed hereto as Exhibit 10 is a document prepared well before August 27, 2002 which was created to discuss searching using the InfoMap prototype software, and searching patent descriptions with the InfoMap Prototype in particular;

28) That annexed hereto as Exhibit 11 is text created in the course of improving the InfoMap invention carrying a date before August 27, 2002, this date having been redacted;

29) That annexed hereto as an Exhibit 12 is a copy of a power point presentation dated November 20, 2002 which is essentially identical to that displayed during the presentation to Lexus/Nexus which occurred on November 6, 2002 at Lexus/Nexus, the presentation displaying pictures of the InfoMap version 1 interface;

30) That annexed hereto as Exhibit 13 is a backup or archiving tabulation which is provided in conjunction with Iron Mountain (paragraph 14) showing that InfoMap v1.ppt power point presentation was backed up on August 12, 2002 and that InfoMap v2.ppt power point presentation was backed up on August 22, 2002, the tabulation showing that presentations InfoMap v1.ppt and InfoMap v2.ppt were completed before August 27, 2002 and that Exhibit 13 reveals that InfoMap v3.ppt power point presentation was completed at least by November 6, 2002;

31) That annexed hereto as Exhibit 14 is InfoMap v1.ppt power point presentation illustrating the development of the present invention at least as early as August 12, 2002;

32) That annexed hereto as Exhibit 15 is InfoMap v2.ppt power point presentation illustrating the development of the present invention at least as early as August 22, 2002;

33) That annexed hereto as Exhibit 16 is InfoMap v3.ppt power point presentation illustrating the development of the present invention at least as early as November 6, 2002;

34) That all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like, so made, are punishable by fine, or imprisonment, or both, under § 1001 of Title 18, and that such willful false statements may jeopardize the validity of the application or any document resulting therefrom.

Further Declarants sayeth naught.

Date August 15, 2006

Dumont M. Jones

Date August 15, 2006

Vadim M. Kogan

Dumont M. Jones, Ph.D.
Proximate Technologies, LLC
Black Bear Software Engineering, LLC
55 N. Cassingham Road
Columbus, OH 43209
telephone: (614) 258-8835
facsimile: (614) 258-8834
email: dumont.jones@prxt.com

Summary: **Information discovery and analysis**
- **Consulting, software design and development**
- **Materials/chemical engineering, and business applications**

History:

2002-Present: Principal, Proximate Technologies, LLC
- Chief architect of "Application-Driven Chemistry" software platform for chemical and materials design--allows designers to move from design requirements to physical materials, using information discovery and optimization techniques.
- Generated new and existing candidate chemistries for an acoustical coupling application.
- Generated new and existing candidate coating chemistries for a polymer-coated silica fiber application requiring low refractive index.
- Co-authored new model for ascertaining whether certain compounds will exhibit single- or multi-phase behavior.
- Author or co-author of various other physical property models, details available on request.
- Primary design of software to facilitate visual discovery and analysis of generic data entities, including unstructured text documents. Associated patent application filed and published.
- Information discovery and analysis consulting for chemical-design and business applications. Current activities include consulting for materials informatics data transformation and structure-property modeling. Application examples available on request.

1993-Present: Principal, Black Bear Software Engineering, LLC
- Design and development of Windows and UNIX software for visualization of complex data systems, and various e-commerce and business components.
- Report-server automation, integration and security, with an emphasis on Actuate reporting systems.
- Design and analysis of predictive statistical models for materials design.

1989-1993: Software Development Scientist, Tripos Associates, Inc., St. Louis, MO.
- Design and development of the Tripos Open Force Field System.
- Development of Quantitative Structure-Property Relationships (QSPR) for chemical properties and related software.

1987-1989: Postdoctoral Research Associate, University of Massachusetts, Amherst, MA.
- Conducted theoretical studies of polymer solutions and suspensions, resulting in 3 technical publications in the open literature.

Technical Skills:
- Information analysis and knowledge discovery.
- Predictive statistical model design.
- Software design and implementation: Windows/UNIX, languages as required.

Education:

- Ph.D. in Chemical Engineering, University of Minnesota, Minneapolis, MN; December, 1986. Advisor: Prof. John S. Dahler. Dissertation Title: On the Theory of Laser-Assisted Collision Processes.
- B.S. in Chemical Engineering, University of Wisconsin at Madison, Madison, WI; September, 1985. Advisor: Prof. M. Morari. Research topic: Organic synthesis.

Publications/ Presentations:

- 15 articles in the open literature. Recent publications (2005,2006) concern models for evaluating whether inorganic compounds will be single- or multi-phase, and an outline of the Application-Driven Chemistry platform mentioned above.
- Several articles in press concerning the development of informatics algorithms and platforms for materials design (crystal structure; creation of luminoscity structure-property relationships, structures for accurate storage and retrieval of materials properties in databases, and correct reduction of heterogeneous materials data sets).

Vadim Koganov

Home Phone: (740)881-3859
Mobile Phone: (614)783-8844
vkoganov@columbus.rr.com
8180 Trail Lake Drive
Powell, OH 43065

STRENGTHS

- 11 years experience in information systems architecture, design and development with emphasis on enterprise systems and applications.
- Extensive knowledge of the object-oriented development process.
- Microsoft Certified Solution Developer (MCSD, MCP).
- MBA degree in Technology Management

Languages: C#, VB.Net, Java, Visual Basic, XML ,XSLT, SQL, DHTML, JavaScript, C++, etc
Operating Systems: Microsoft Windows 2003/2000/NT/ 9x, Linux, UNIX.
Development Tools: MS Visual Studio 2003/2000/6.0, BizTalk Server 2002/2004, Jbuilder, UML/Rational Rose, MS Visual Source Safe, etc

EXPERIENCE

Software Architect/Developer (Ind.) March 2000 – present
Silicon Motif, Inc., Columbus, OH

Major Clients:
Ohio Department of Education, Columbus, OH
Solution Architect

- Architected, designed and led development of a brand-new integrated suite of applications composing a state-wide educator information and licensure system; was solely responsible for the development of the overall technical architecture and design;
- Designed, developed specifications for and oversaw the development of over 30 .Net Web Services composing the business tier of the Service-Oriented Architecture for the said educator information and licensure system;
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- Provided technical know-how and direction to the development team ;

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- Designed and implemented a .Net Remoting-based data access infrastructure now utilized by several of the enterprise applications;
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continued...

EXPERIENCE (continued)

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- Developed architectural approach and implemented a complex trading partner integration (import/export) solution (Microsoft BizTalk Server 2002);
- Architected and developed a complete electronic document generation, editing, and storage system with a web-based front end;
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Tools: VS.Net 2003 /C#/ VB.Net/ASP.Net, MS BizTalk Server 2002, MSMQ, ASP, MS XML/XSLT, DHTML, MS SQL Server 2000, MS Visual Basic 6.0, Crystal Reports
Environment: Windows 2000/2003/XP

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- Co-authored a state-of-the-art data analysis solution (application for U.S. Patent Serial number 10/706352 - "Document Search Method with Interactively Employed Distance Graphics Display.")

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- Envisioned and developed a large-scale data aggregation process and tax simulator which was used to generate local and state tax projections and calculations;
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- Developed a dynamic reporting system capable of aggregating and summarizing large volumes of data produced by the tax simulator;

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EXPERIENCE (continued)

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Technical Project Leader January 1998 – October 2000
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- Developed relational database schemas.
- Designed, administered and updated information systems based on Microrim R:Base RDBMS

Tools: MS Fox Pro, Microrim R:Base, Lantastic
Environment: Windows 3.1/95.

Software/Hardware Consultant 1994 – 1996
PhytoLife Sciences, Inc. Columbus, Ohio.
- Set up communications between the U.S. and Moscow, Russia
- Designed and implemented the corporate World Wide Web site

Environment: UNIX

EDUCATION	**M.B.A.**, Concentration: Technology Management, GPA 3.82. Franklin University, Columbus, Ohio. Thesis: Software Development Project Management.	1999
	B.S., Computer Science, GPA 4.0 Franklin University, Columbus, Ohio. President's Honors.	1996
ADDITIONAL	U.S. Citizen, Fluent Russian.	

REFERENCES AVAILABLE UPON REQUEST

S&H Form: PTO/SB/16 (2-01)

ALLOW

EXHIBIT 2

PROVISIONAL APPLICATION COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION under 37 CFR 1.53(c).

Docket Number	1615.1016P	Type a plus sign (+) inside this box → +

INVENTOR(S)/APPLICANT(S)

LAST NAME	FIRST NAME	MIDDLE INITIAL	RESIDENCE (CITY AND EITHER STATE OR FOREIGN COUNTRY)
QUINN	Paul	W.	Kensington, CA
MANTLE	Michael	T.	San Rafael, CA
ROBERTS	Dale		San Anselmo, CA

TITLE OF THE INVENTION (280 characters max)

PLAYLIST AND MUSIC MANAGEMENT FOR DEVICES

CORRESPONDENCE ADDRESS

21171
PATENT TRADEMARK OFFICE

ENCLOSED APPLICATION PARTS (*check all that apply*)

- ☒ Specification *Number of Pages* 4
- ☐ Drawing(s) *Number of Sheets* _____
- ☐ Application Data Sheet. See 37 CFR 1.76
- ☐ Other (specify) _____

METHOD OF PAYMENT (*check one*)

☐ Applicant claims small entity status. See 37 CFR 1.27.	PROVISIONAL FILING FEE AMOUNT($)	$150.00
☒ A check or money order is enclosed to cover the Provisional filing fees		
☒ The Commissioner is hereby authorized to charge any underpayment of filing fees and credit any overpayment of filing fees to Deposit Account No. 19-3935		

The Invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

- ☒ No
- ☐ Yes, the name of the U.S. Government agency and the Government contract number are: _____

Respectfully submitted,

SIGNATURE _____ DATE 8/27/1

TYPED or PRINTED NAME J. Randall Beckers REGISTRATION NO. 30,358
(*if appropriate*)

PROVISIONAL APPLICATION FILING ONLY

Playlist and Music Management for Devices

Revision: 1-1-10813

Gracenote
2141 4th Street
Berkeley, CA 94710
www.gracenote.com

Description

The Gracenote Playlist and Music Management solution is a set of APIs, object code and reference designs for implementing playlist and music collection management functionality in internet connected and eCDDB powered devices. Gracenote's playlist and music management solution is powered by Gracenote's basic metadata – artist name, album name, track name, and genre information already present in the eCDDB database, providing users flexible methods for organizing playlists and viewing their music collection. The Gracenote solution provides a flexible and complete music management solution for devices.

General music industry knowledge and studies by Gracenote have concluded that a playlist is a very personal representation of each persons individual listening tastes. Automatic playlist generation based upon music similarities, tempo, or even style are rarely compelling or even suitable for listening use. To this end, Gracenote has focused its Playlist and Music Management solution on providing crucial playlist management functionality that allows for easy playlist personalization and editing.

Key Functionality

- Simplified one-touch playlist generation
- Artist/Album/ Genre playlist generation
- One-touch playlist editing
- Powered by CDDB

Components

- Extended embedded database for non-connected devices
- Playlist management object code ported to target OS
- APIs for integration with device display
- Reference design for playlist management interface
- Periodic updates to include new releases

Operation

The Gracenote Playlist and Music Management Solution enables end users to manage their collection of music through flexible tools and interfaces. The solution has been designed to enable the integration of the most critical playlist functionality seamlessly with existing device interfaces and displays. Reference designs are provided with the solution although an open API toolkit enables customization of deployment for specific device needs.

Because the Gracenote Playlist and Music Management system is integrated with eCDDB recognition services, application code is ported to your target OS at the time that the eCDDB port is done. In addition the related data required to power such playlist functionality is relatively smaller than other playlist solutions requiring only modest incremental data in the eCDDB database.

Playlist Creation
The Gracenote solution enables the creation of playlists is several different ways.

One-Touch playlist
Through selection of single starting criteria (i.e., an artist, album, or genre) a user can generate a playlist of like-minded music from the music available on their device with one push of a button. The like-minded music is powered by Gracenote's eCDDB metadata insuring a level of accuracy not found in typical ID3 tag reading solutions.

Artist Playlist
Through selection of a specific artist a user can create a playlist of all that artist's music on their device.

Album Playlist
Through selection of a specific album a user can create a playlist of the songs on that album.

Genre Playlist
Through selection of a specific genre, or one of Gracenote's 274 sub-genres, a user can create a playlist of all music that fits in that genre or sub-genre from the collection on their device.

Genre Mapping
If the user does not have enough tracks from the original selected genre to make up an entire playlist, the Gracenote solution utilizes genre mapping to select tracks from the closest related set of genres available in the users collection.

The example below illustrates how the genre playlist utilizes the original genre as a primary selection method and related genres as a secondary selection method:

Santana (Genre: Classic Rock) will find: The Doobie Brothers, The Moody Blues, The Eagles, Jefferson Airplane (all Classic Rock) **and** Los Lobos, Chris Perez Band (both Latin Rock)

Red Hot Chili Peppers (Genre: Funk-Rock) will find: Psychefunkapus, Living Colour, Fishbone (all Funk-Rock) **and** James Brown (Funk), Faith No More (Alternative Metal).

Morcheeba (Genre: Trip-Hop) will find: Portishead, Massive Attack (both Trip-Hop) **and** Brand New Heavies (Acid Jazz), Jurassic 5, Blackalicious (both Underground Hip Hop)

Playlist Management
The Gracenote solution enables end users to manage playlists prior to or during playback.

Playlist Add/Delete
During playback of any audio a specific artist, album, track or genre can be added to or deleted from an existing playlist.

Playlist Edit
Playlists can be edited at any time to add or delete artists, albums, tracks or genres.

Playlist Remove
Playlists can be removed at any time.

Playlist Save
Playlists can be saved and named enabling quick retrieval and playback

Transfer to device
The Gracenote solution includes APIs for recognizing MP3s via text matching against the file's ID3 tag at the time of transfer to the device. This eliminates the need for computationally expensive crawlers and insures that all music on the device can be accessed via the Gracenote Playlist and Music Management Solution with clean metadata and genre information.

Coverage and Scalability

The Gracenote solution differs from most other solutions available today in that it is built around the eCDDB recognition solution making it ideal for ripping/playing devices. Because there is no reliance on editorial content the solution includes coverage on any segment of the Gracenote database of over 300,000 artists, 900,000 albums, and 12,000,000songs.
As a result the solution is infinitely scalable without the need for editors to listen to and rate each song. New releases are entered into the system once they have been played sufficiently (often before release).

Requirements

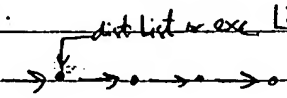
Hardware

- Graphics or text display.
- eCDDB or internet enabled device

Update Entitlement

Updates to the playlist data set are delivered via the same mechanism and at the same time as updates to the eCDDB recognition database.

InfoMap User Scenarios.



1. Scan emails
2. Detect redundant content
3. Detect variations, docs closest to each variation (or versions) Procedure, contract, financial
4. Build critical group definition (incrementally)
5. Assure copies of critical docs are located in separate locations + up to date
6. separate docs that have only unimportant content
7. Establish locations of critical content
8. Distribution of 2° properties within a cluster group
9. (Search for properties.)
   Estabd: Divide a group into subgroups based on search(')

EXHIBIT 4

IRON MOUNTAIN DIGITAL™

Digital Services & Software

DIGITAL SERVICES & SOFTWARE

Iron Mountain Digital is the world's largest provider of data backup/recovery and archiving software as a service.

Our comprehensive data protection and e-records management solutions help thousands of corporations and tens of thousands of small and mid-sized companies:

- Mitigate risk related to electronic records and information.
- Automatically and reliably back up and recover server and PC data.
- Meet regulatory compliance requirements.
- Respond to litigation in real time.
- Contain storage costs.

OUR SERVICES

Data Protection for PCs and Servers

Connected® Backup/PC
Iron Mountain's **Connected® Backup/PC** solution is the undisputed No. 1 solution for automatic desktop and laptop data protection and recovery. The Connected® Backup/PC solution virtually eliminates the risk of PC data loss, by automatically backing up desktop and laptop computers as users go about their normal tasks. See an **animated process overview** on how to protect your data.

Server Backup & Recovery
Iron Mountain **Server Data Protection & Recovery** delivers affordable, online server backup for rapid recovery of lost or damaged files - the ideal solution for secure, automatic, consistent protection of distributed server data.

DataDefense™
DataDefense™ enables automatic, intelligent encryption of all sensitive PC data, preventing abuse of sensitive data after the loss or theft of a PC.

eRecords Management
Iron Mountain provides a range of **eRecords Management services**, from email and message archiving to image archiving, content monitoring, and custom program development.

If you have questions about our services or solutions call us at 800-899-IRON.

IRON MOUNTAIN DIGITAL™

Digital Services & Software

PC DATA PROTECTION

A higher level of protection for distributed PC data

While sensitive data is increasingly well protected behind the firewall, it is far more vulnerable when moved to laptops and PCs outside the network boundary. Because they require action by busy end users many data protection policies are difficult to enforce, resulting in security lapses that expose corporations to the risks and costs of data loss.

PC Data Protection is available as a managed service - where we do the work for you - or as a licensed software solution.

Enforce data protection policies automatically

With PC data protection from Iron Mountain, your organization can extend the reach of current data protection policies to effectively protect data stored on PCs.

PC Data Protection makes it possible to:

- Backup PC data automatically, consistently and securely
- Automatically encrypt sensitive files to thwart unauthorized access
- Enable users to quickly restore lost or damaged files following a disaster
- Support compliance requirements for data privacy and protection

Simple, cost-effective security

Iron Mountain's affordable solutions enhance data protection while requiring little intervention by IT staff. They enable end users to comply with security polices without interrupting work routines. Furthermore, they ease the burden on help desk staff by allowing users to be more self-reliant.

IRON MOUNTAIN DIGITAL™

Digital Services & Software

SERVER DATA PROTECTION

Enhanced protection for distributed servers

Vast quantities of data now reside in remote offices and branch locations, making backup of distributed data a strategic imperative for IT groups.

Unfortunately, tape backup methods are not always ideally suited to this challenge. Once-a-day backups leave you vulnerable to data losses. Lack of adequate IT staff can result in inconsistent procedures and failed backups. Managing media at many sites makes backup costly and cumbersome.

Iron Mountain Server Data Protection & Recovery helps you mitigate or eliminate these problems with affordable solutions for continuous online backup of distributed servers.

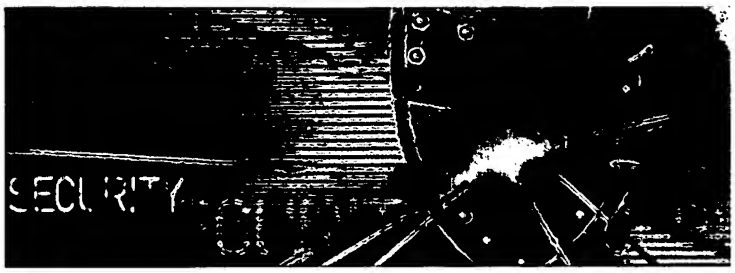
Benefits of Server Data Protection & Recovery:

- Critical server data is backed up securely, automatically, consistently
- Rapid recovery of lost or damaged files
- Business continuity following a data loss or disaster

If you have questions about our services or solutions call us at 800-899-IRON.

IRON MOUNTAIN DIGITAL™

Digital Services & Software



DATADEFENSE™

Safeguard PC data with automated encryption and destruction

Today's workers routinely store high-value information on their mobile systems. The risks to this data are significant and growing, yet such information is often completely unprotected or only thinly guarded.

Even when stringent data protection policies are in place, the burden of enforcement is on end users; lax adherence to procedures can result in data loss and devastating consequences to the organization.

Iron Mountain DataDefense™: Returning control to the IT organization

Iron Mountain DataDefense enhances protection for distributed data by shifting control back to the IT group, enabling automatic and consistent enforcement of data protection policies across all distributed systems.

DataDefense:

- Provides enforced, intelligent encryption of sensitive data
- Enables automatic destruction of data when a PC is lost or stolen
- Requires minimal administrative resources
- Supports compliance requirements for data protection and privacy
- Offered as a hosted subscription service or licensed software solution

Protection with no user intervention required

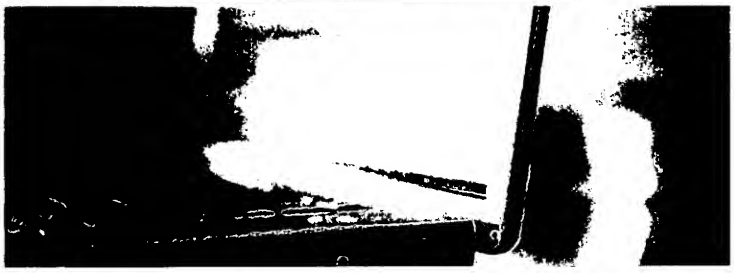
DataDefense provides automatic, intelligent encryption of all sensitive PC data, without any special action by the end user - whether or not a system is online. When DataDefense detects behaviors that are inconsistent with authorized use, sensitive data is automatically eliminated and the PC is disabled - rendering the data useless to thieves.

This low-cost solution greatly enhances distributed data protection without placing an added burden on your IT staff. Streamlined deployment and "silent" installation allow you to quickly roll out your solution without inconveniencing users. Community-level policy enforcement lets you consistently apply security policies across a widely dispersed user group.

If you have questions about our services or solutions call us at 800-899-IRON.

DIGITAL™
IRON MOUNTAIN

Digital Services & Software



ERECORDS MANAGEMENT

Manage your electronic records to improve access, compliance, and cost control Electronic records are inundating corporations. Processes that were simple with paper records - indexing, retrieval, retention management, destruction - are now complex. Since erecords are considered potential evidence in discovery, they must be treated like any other information - requiring easy searchability and quick access.

Iron Mountain provides a range of eRecords Management services, from email and message archiving to image archiving, content monitoring, and custom program development that ensure:

- Fast access to erecords for timely response to discovery
- Compliance with information privacy and security regulations
- Flexible deployment options: choose either a hosted or software solution
- Reduced storage costs with our special digital archives architecture
- Long-term, affordable storage an our secure environment

If you have questions about our services or solutions call us at 800-899-IRON.

Proximate Technologies, LLC
InfoMap™ Solution

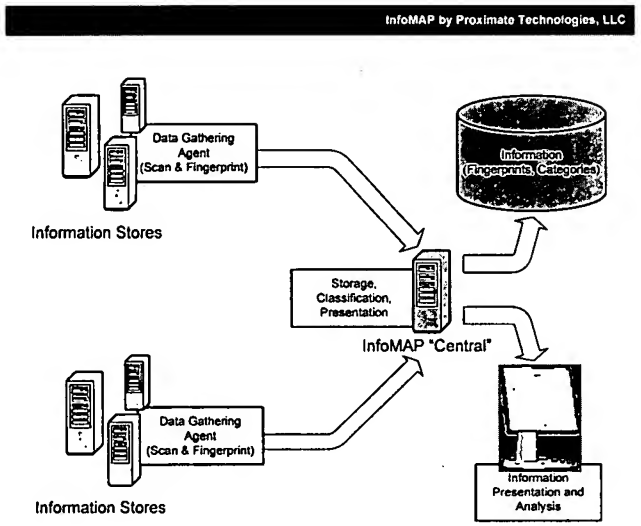
Overview

Proximate Technologies, LLC has developed the InfoMap™ solution to help businesses understand and analyze their enterprise information. InfoMap™ helps answer fundamental questions about a business' information: What information do we have? What is worth protecting? Which of our corporate documents are redundant? Do some documents mix different kinds of important information? Is some of my information unique, not available anywhere else? If we could protect only one hundred (one thousand,...) documents in my organization, which ones would we preserve? What information do we need that we don't currently have?

InfoMap™ consists of several major components: a *visualization application*, *data store module*, and *data gathering* "bots", or small automated programs that search servers and databases for information. InfoMap™ gathers important data about a massive number of documents distributed throughout the enterprise by utilizing a unique application of the digital fingerprinting and comparison technologies.

Data Gathering

The data gathering "bots" scan the documents, generate a digital fingerprint for each one, and send that fingerprint, along with document's other attributes, such as name, location, and size, to the InfoMap™ Central location for storage and analysis.

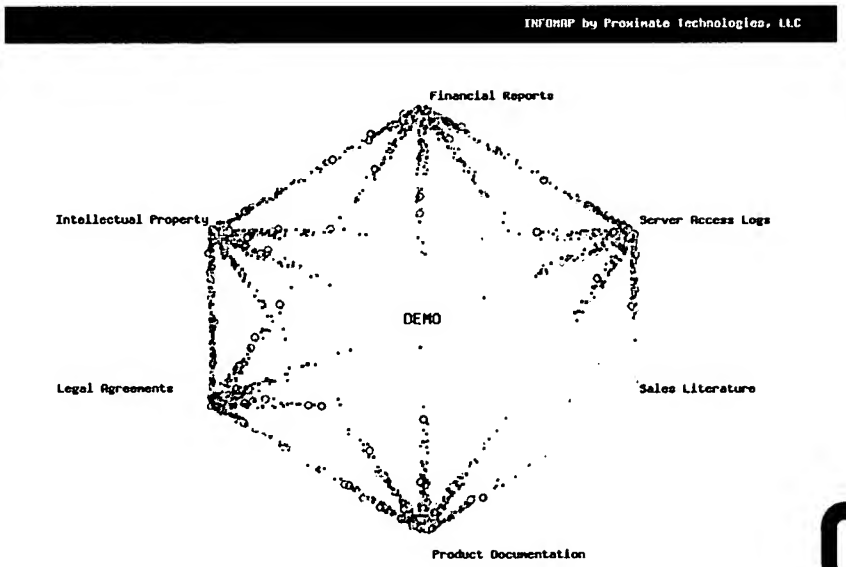


Based on provided samples, InfoMap™ Central generates a digital fingerprint for each type of content that is the main point of interest to the users. Subsequently, the system determines the content categories for each of the fingerprints provided by the "bots", and stores document fingerprint and attribute information in its own database, which is used by the visualization application.

Presentation & Analysis

The InfoMap™ utilizes two main data visualization methods. The first method is designed to help analysts quickly assess the number and distribution of the documents containing critical information. This view presents several dimensions for analysis.

The application screen displays sets of dots, each representing a document (or a set of documents), grouped into star-like clusters. Every cluster represents one user-defined type of content. The color of each dot identifies the primary cluster (content type) to which it belongs. The intensity of the color shows amount of important information in the document – the more "fluff," the lighter the dot's color. The distance of each dot from the center of its primary cluster represents amount of the relevant content in the



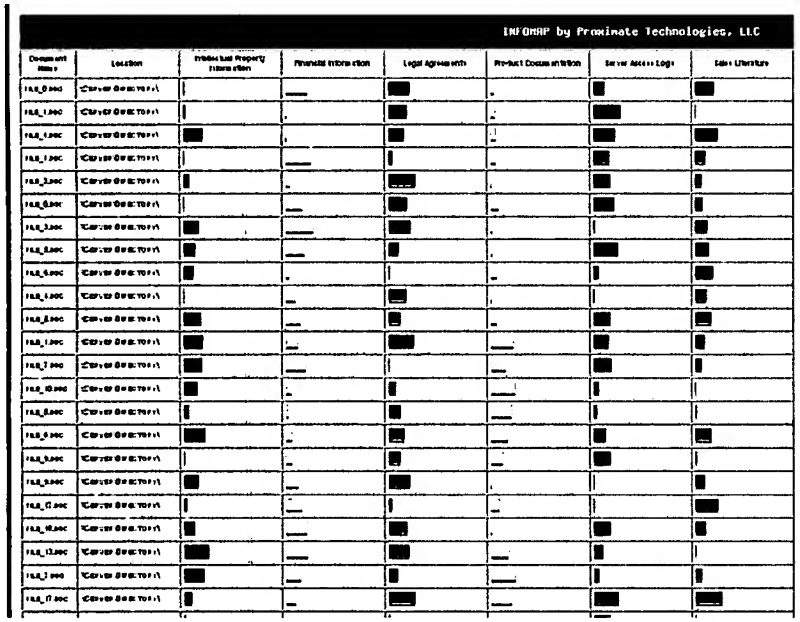
document, excluding the "junk" portions.

EXHIBIT 4

The location of a dot on a specific star's "ray" identifies secondary content cluster to which the document belongs (if any). The "rays" are actually "pointers" to the secondary clusters (content types). In addition, the empty circles on the diagram identify documents that contain information that InfoMap™ was unable to categorize.

Analysts working in an enterprise environment with a multitude of content types and large numbers of documents will have ability to zoom into the main area of interest, thus concentrating on the most high-impact information.

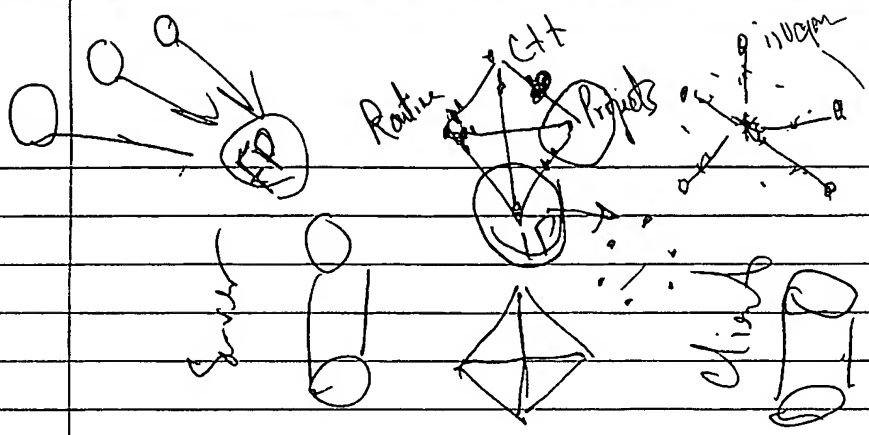
The second data view allows analysts to see a list of actual documents, including their names, locations, sizes, or other attributes, while at the same time providing a visualization of the document's major content types.

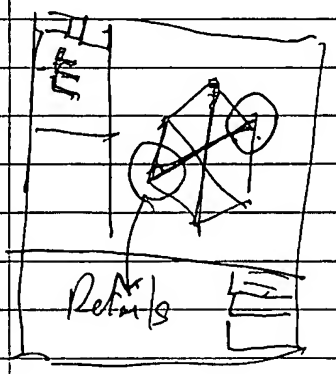


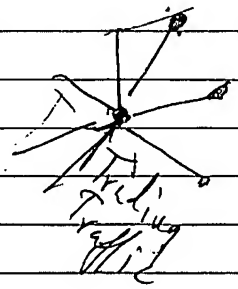
This view allows InfoMap™ users to quickly identify the substance and the location of the mission-critical and important information repositories, along with other attributes. It also allows for identification of unimportant and redundant information, thus optimizing a multitude of maintenance efforts.

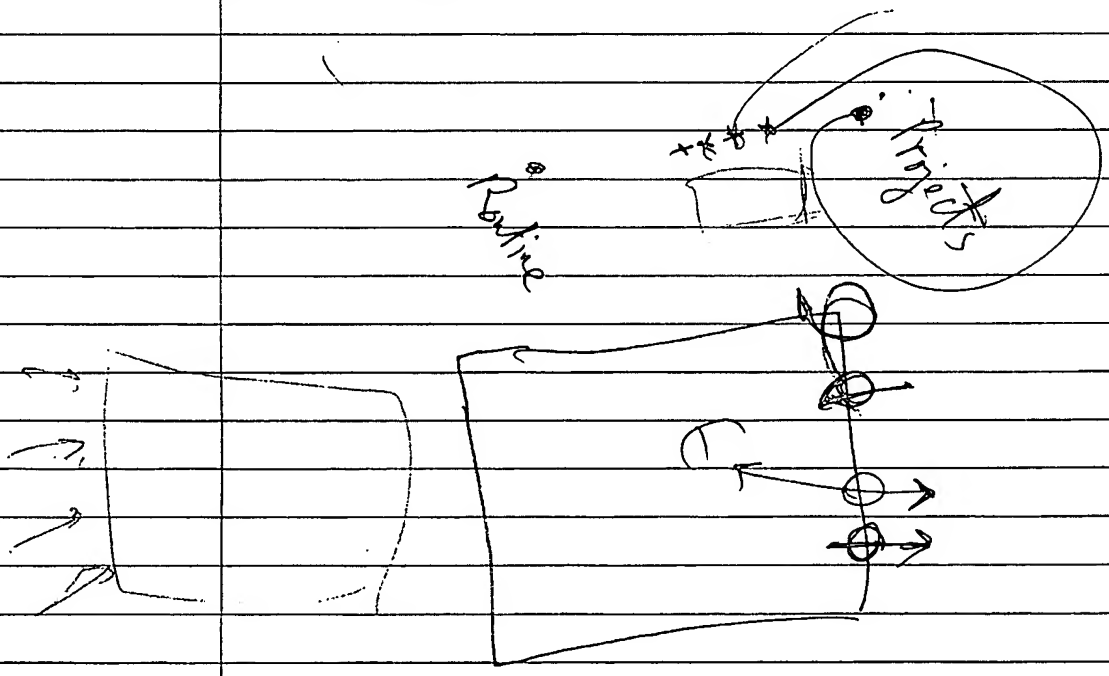
EXHIBIT 9

264









Vadim:

XML-RPC update

Yahoo

Patent → SW. alg.

Demo for Lexus-Nexus.

Notes on analyzing patents using infomap

1. For initial clusters, use short and general samples to start things off.
2. May want to eliminate len-3 patterns for short samples.
3. Need to be able to choose "best fit to a group doc" or "fit all group docs"
4. The current fa.exe does not distinguish between (e.g. "sol" and "sol "). Might look at features of lengths 3-7, 12.
5. "Bioactive" produces "bio" and extensions. Would like to eliminate
6. Next: add solution soln. solvent to list of items that are uninteresting. Desired (?) Be able to remove these features from clusters.
7. Notes on display: When plotting a point between two nodes, the critical point is to show the relative distance between the two points. So 50-25 and 20-10 would be at the same point. A secondary feature of the dot can be used to indicate the strength of the hit.
8. Add agriculture node, seed is agriculture + agrichemical. Generates three abstracts
9. Add initial mepat59 to this node. Result is a great deal of overlap, but it appears that much of this is related to the long list of two-letter codes that appear in the front of these patents. This is a scenario where a feature-subtract capability would be perfect. Instead, remove mepat59, and insert only the abstract proper.
10. Repeat for mepat158 and mepat127. After placed in the node, picked up a patent (60) that was similar (mentioning pesticides), but did not match any of the original keywords....
11. A huge help here to remove features that are not relevant to an inquiry.

Mepat60	78	19	10000	18
Mepat158	157	10000	10000	19
Mepat59	57	10000	10000	24
Mepat127	209	10000	10000	34
Mepat112	69	19	10000	56
Mepat245	125	10000	10000	62
Mepat281	69	19	10000	64
Mepat56	89	10000	10000	65
Mepat49	78	19	10000	66
Mepat111	69	19	10000	67
Mepat261	89	19	19	68
Mepat113	89	19	10000	74
Mepat99	125	10000	10000	74

12. Now get the table above. This inquiry matches similarity from factors other than the new keyword. (Again, removal of this noise would be a big help here.)
13. Remove the additional abstract (60) from this cluster, and add "pesticide" + "herbicide" to the seeds for the agriculture cluster (just added a new file agri2.txt to the cluster with "herbicide pesticide" in the file). (Here we should allow the "best match" with any cluster doc to be a doc's distance....)
14. No improvement, because there is no "best match" criterion. Next best thing is to remove the abstracts temporarily from the cluster, leaving agri1.txt and agri2.txt only...
15. mepat86 is a good hit, now add this to the list of abstracts defining the cluster.
16.

From: <dumont.jones@prxt.com>
Date: August 3, 2006 3:05:52 PM EDT
To: undisclosed-recipients:;

DATA
From: "Dumont Jones" <dumont.jones@prxt.com>
To: "'Jerry Smith'" <jsmith@muellersmith.com>
Subject: Emailing: infomap_user_notes.txt
Date: Thu, 3 Aug 2006 15:04:34 -0400
Message-ID: <003f01c6b72f$d425f0c0$6401a8c0@PRXDMJ04>
MIME-Version: 1.0
Content-Type: multipart/mixed;
boundary="----=_NextPart_000_0040_01C6B70E.4D1450C0"
X-Mailer: Microsoft Office Outlook 11
Thread-Index: Aca3JtGsbfxB8XWKRW2Orst6xCh7Vw==
X-MimeOLE: Produced By Microsoft MimeOLE V6.00.2900.2869

This is a multi-part message in MIME format.

------=_NextPart_000_0040_01C6B70E.4D1450C0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

The message is ready to be sent with the following file or link attachments:

infomap_user_notes.txt

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

------=_NextPart_000_0040_01C6B70E.4D1450C0
Content-Type: text/plain;
name="infomap_user_notes.txt"
Content-Transfer-Encoding: quoted-printable
Content-Disposition: attachment;
filename="infomap_user_notes.txt"

1. For searching problems, consider initial grouping of raw node into "yes", "not sure", and "no" groups for initial separation. I.e. take=20 advantage of initial uncertainty. (There can be several kinds of "yes" =

and "no"
groups. In this scenario, a "no" doc move towards "maybe" as things =
progress,
but this is OK. More importantly, a doc with "maybe" status can move =
towards "yes"
as things become clear.

2. One thing that is interesting/useful: two separate notions can be =
measured
against each other. Given a doc, one can measure whether a small =
word,phase,...
is contained in the doc. Also, one can determine if the doc lies inside =
a larger
doc set. For example, one can pull a doc towards a large pool of text =
(e.g.=20
algorithm abstracts), and simultaneously pull it away with one or more=20
small and specific patterns (e.g. linear algebra, ...).

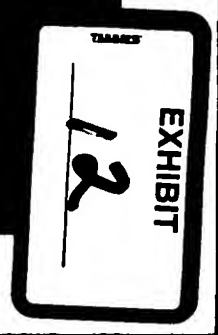
=20

------=_NextPart_000_0040_01C6B70E.4D1450C0--

InfoMap: concept-based information taxonomies

Dumont M. Jones, Ph.D.

Proximate Technologies, LLC

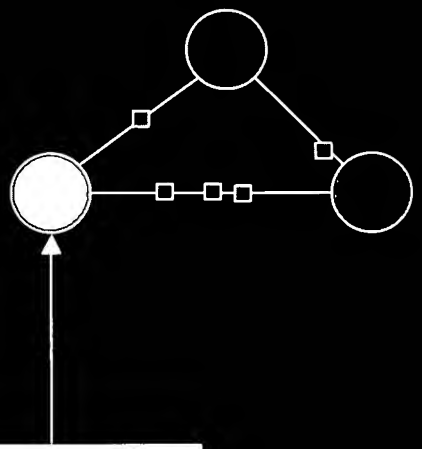


Challenge: organize and evaluate unstructured knowledge

- Identify our intellectual property.
- Identify sensitive client or employee data, regardless of location.
- Filter critical from non-critical knowledge (Content mgt projects).
- Find *all relevant* abstracts, patents, documents, to our process.
- Determine the time and origin of a document's content.
- Audit: is content secure and where it should be?
- Content firewall: monitor network traffic for sensitive content

InfoMap: visual and direct.

- **Organize information directly by concept, using a net picture. One node = one concept**
- **Concepts built from text samples—from one word up to many files. Nodes attract text containing similar content.**

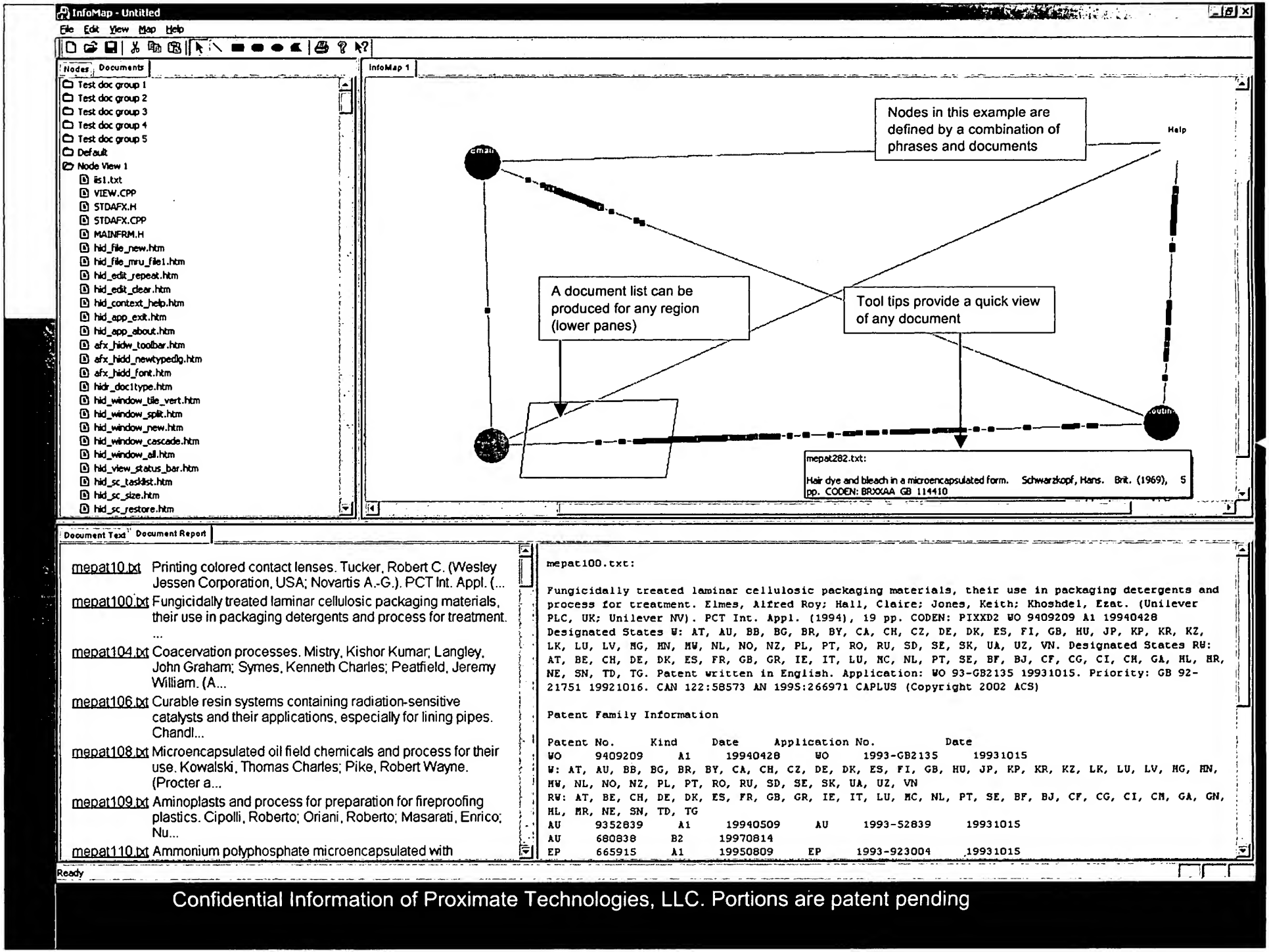


InfoMap: visually manipulate concept-based taxonomy to organize and find information

-Organize information directly by concept, using a net picture.

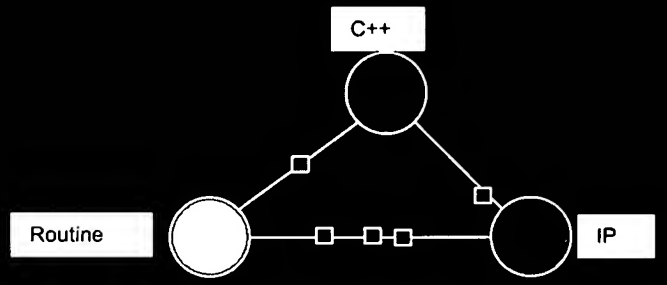
-Concepts are built from text samples...

11/20/2002



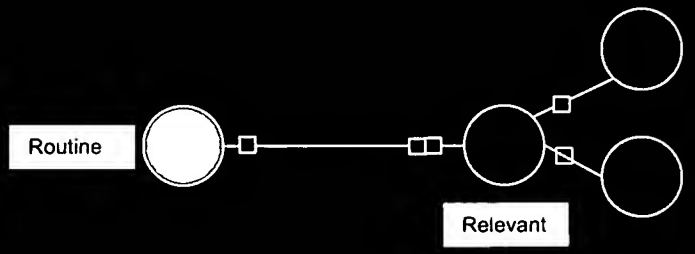
InfoMap: sample taxonomies

- **Factor enterprise information**



- **Compare content systems (copyright)**

- **Comprehensive searching**



11/20/2002

InfoMap: sample taxonomies (2)

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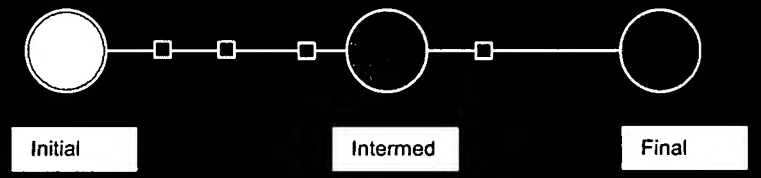
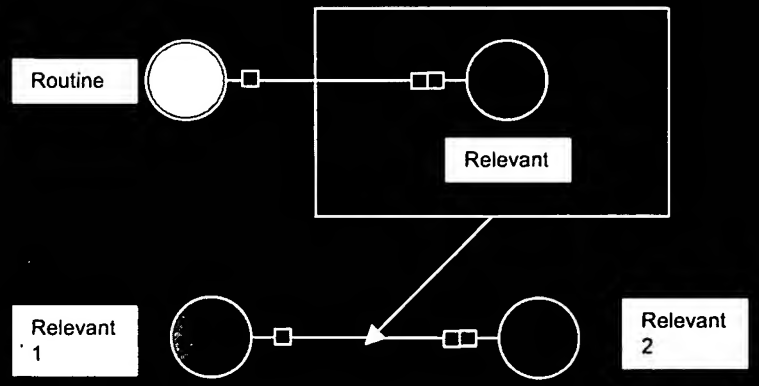


- **Subnet**



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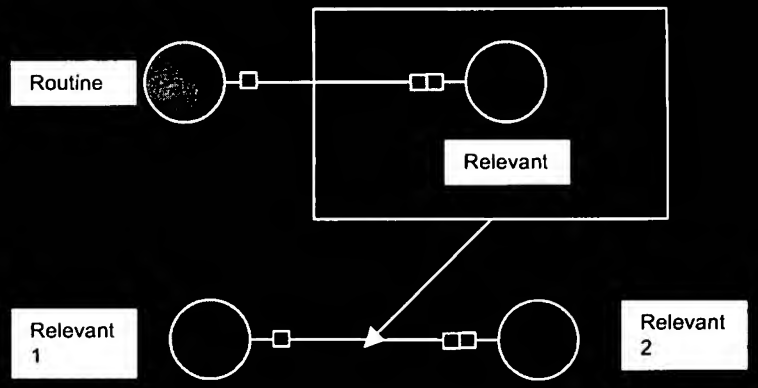

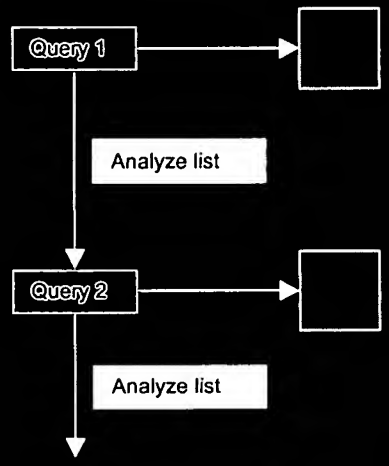

11/20/2002

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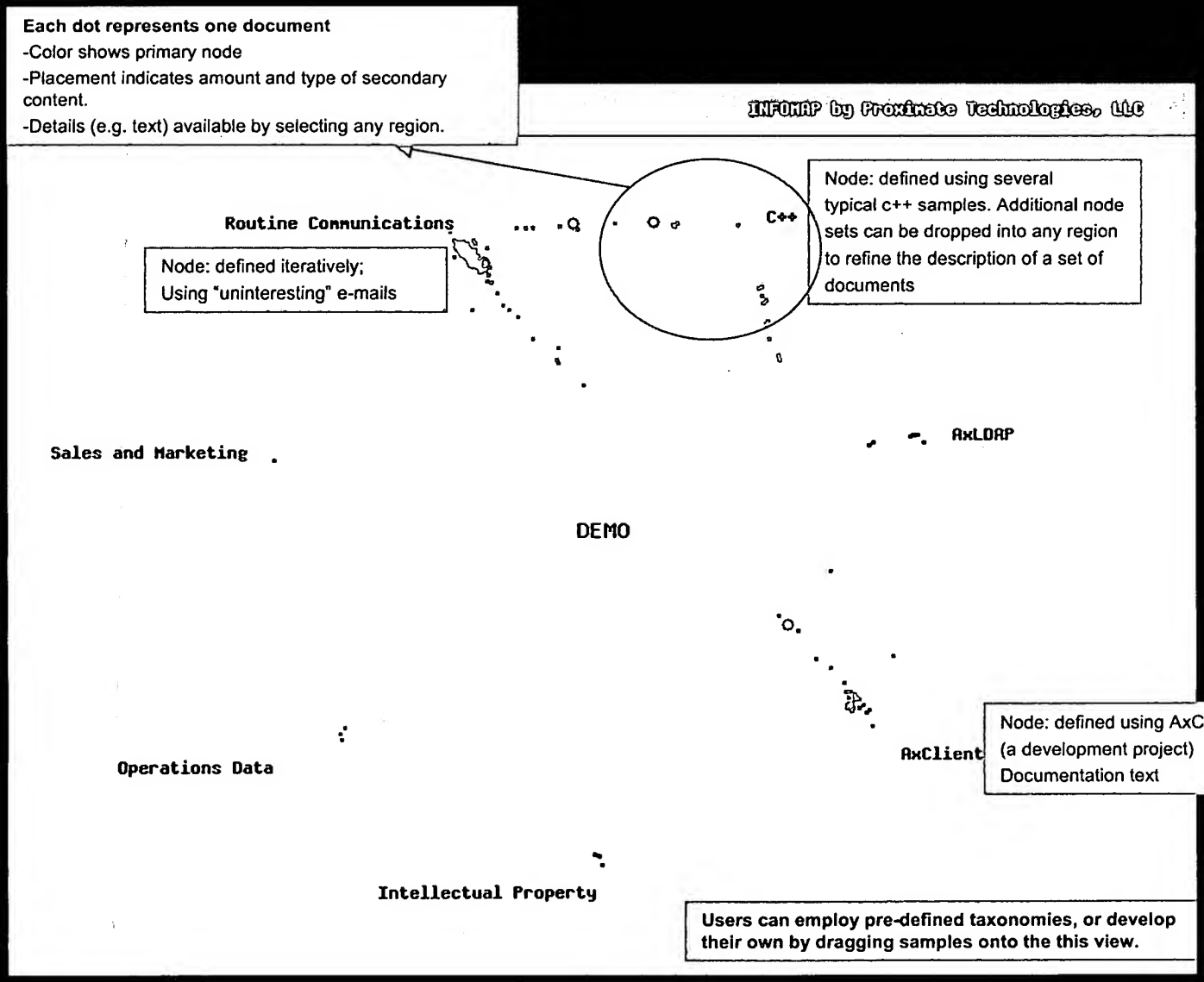

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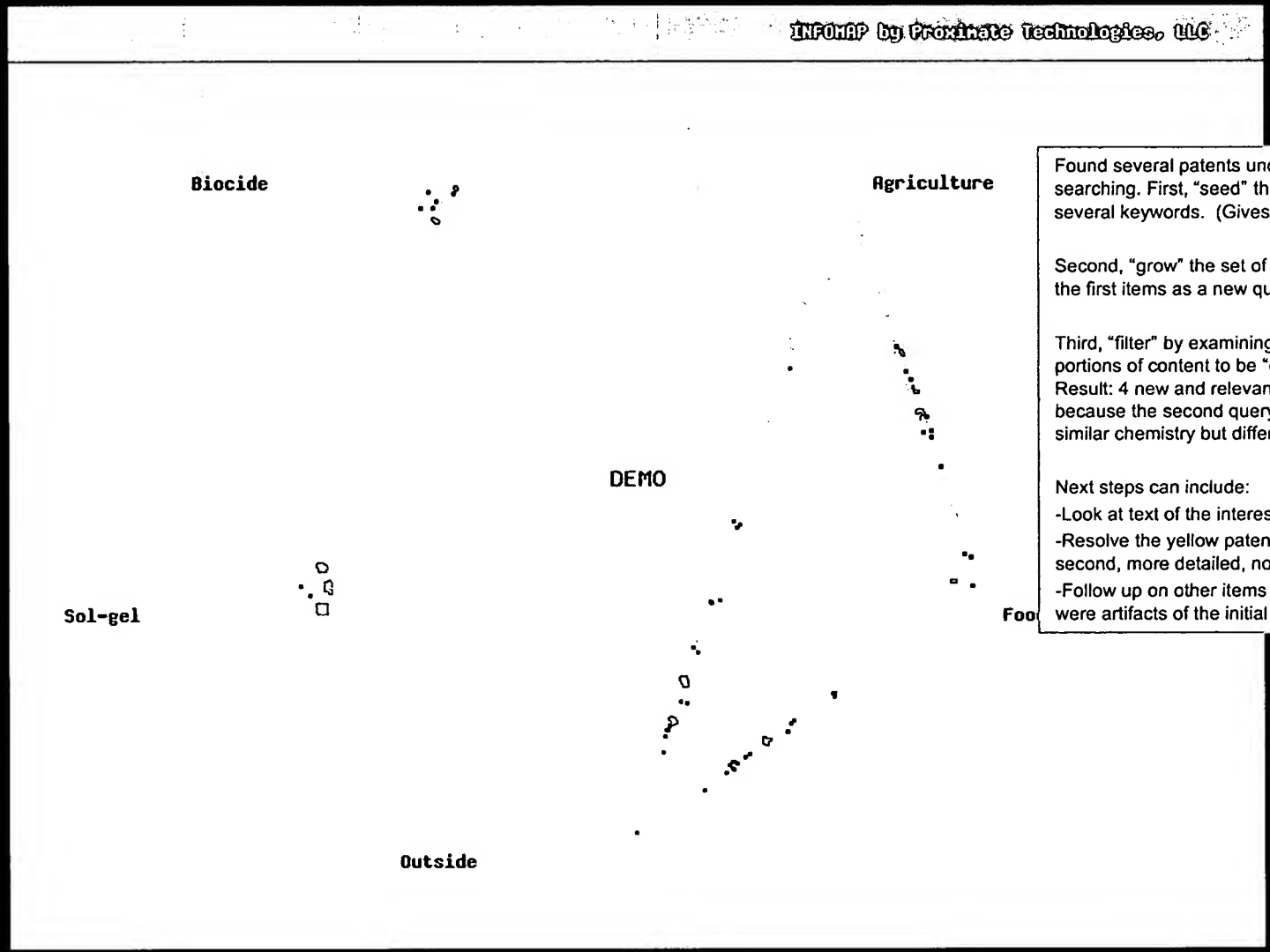

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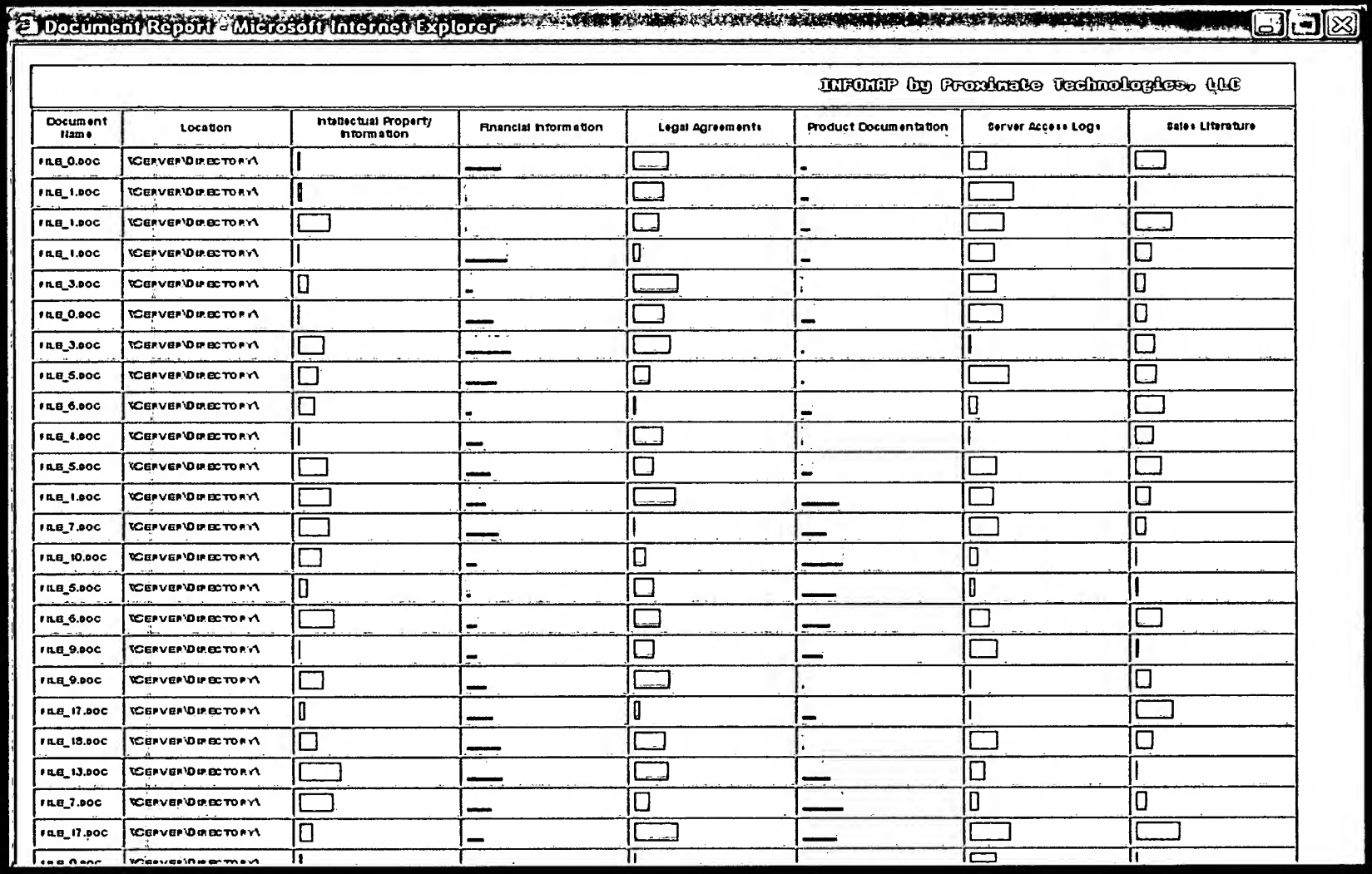

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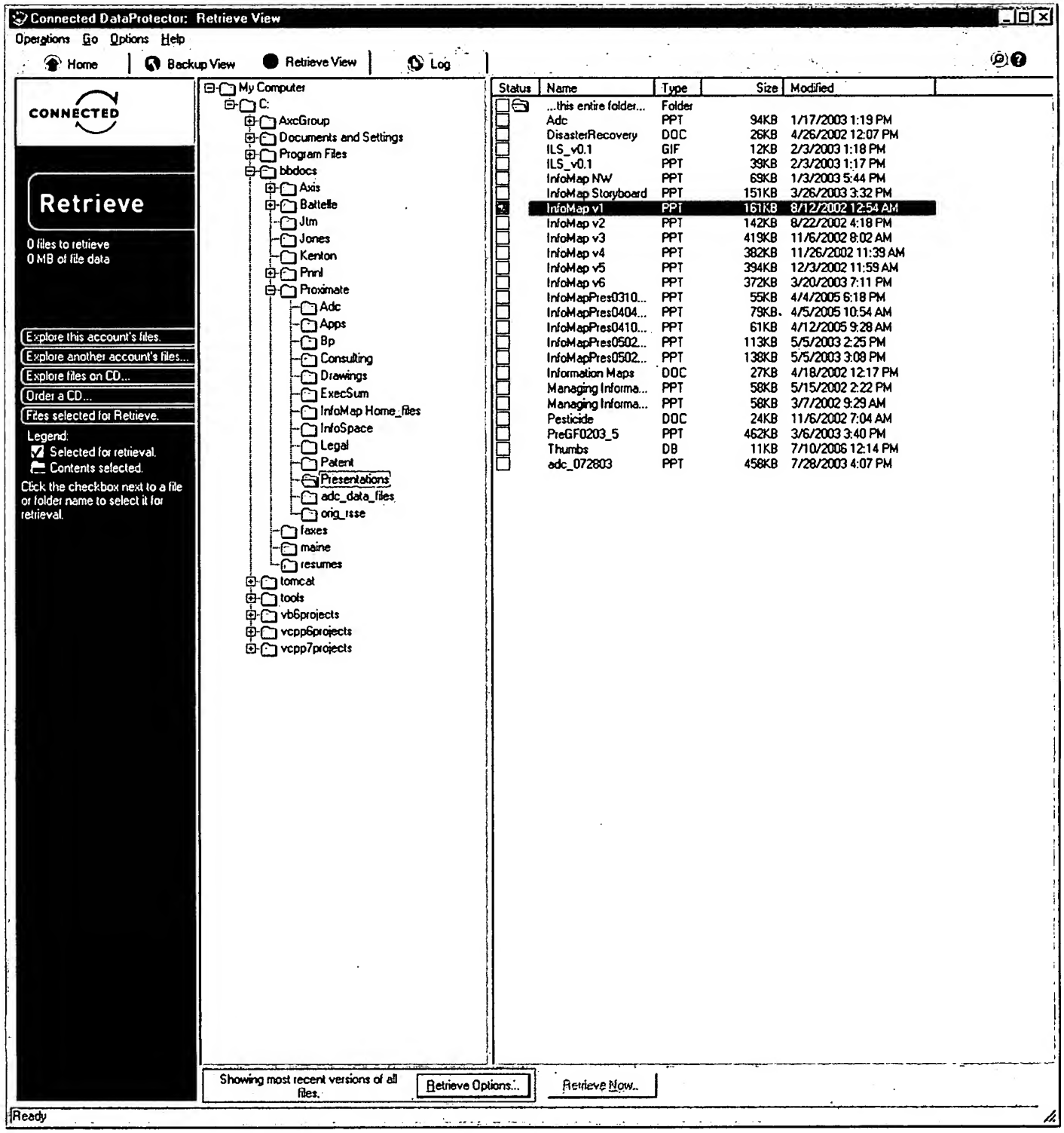
Connected DataProtector: Retrieve View
Operations Go Options Help
Home
Backup View
Retrieve View
Log
CONNECTED
Retrieve
0 files to retrieve
0 MB of file data
Explore this account's files.
Explore another account's files...
Explore files on CD...
Order a CD...
Files selected for Retrieve.
Legend:
Selected for retrieval.
Contents selected.
Click the checkbox next to a file or folder name to select it for retrieval.
My Computer
C:
AxcGroup
Documents and Settings
Program Files
bbdocs
Axis
Battelle
Jtm
Jones
Kenton
Pnnl
Proximate
Adc
Apps
Bp
Consulting
Drawings
ExecSum
InfoMap Home_files
InfoSpace
Legal
Patent
Presentations
adc_data_files
orig_isse
faxes
maine
resumes
tomcat
tools
vb6projects
vcpp6projects
vcpp7projects
Status
Name
Type
Size
Modified
...this entire folder... Folder
Adc PPT 94KB 1/17/2003 1:19 PM
DisasterRecovery DOC 26KB 4/26/2002 12:07 PM
ILS_v0.1 GIF 12KB 2/3/2003 1:18 PM
ILS_v0.1 PPT 39KB 2/3/2003 1:17 PM
InfoMap NW PPT 69KB 1/3/2003 5:44 PM
InfoMap Storyboard PPT 151KB 3/26/2003 3:32 PM
InfoMap v1 PPT 161KB 8/12/2002 12:54 AM
InfoMap v2 PPT 142KB 8/22/2002 4:18 PM
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InfoMap v4 PPT 382KB 11/26/2002 11:39 AM
InfoMap v5 PPT 394KB 12/3/2002 11:59 AM
InfoMap v6 PPT 372KB 3/20/2003 7:11 PM
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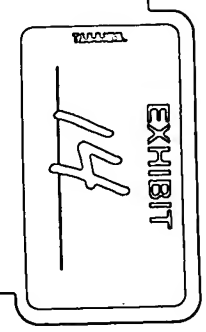
InfoMapPres0404... PPT 79KB 4/5/2005 10:54 AM
InfoMapPres0410... PPT 61KB 4/12/2005 9:28 AM
InfoMapPres0502... PPT 113KB 5/5/2003 2:25 PM
InfoMapPres0502... PPT 138KB 5/5/2003 3:08 PM
Information Maps DOC 27KB 4/18/2002 12:17 PM
Managing Informa... PPT 58KB 5/15/2002 2:22 PM
Managing Informa... PPT 58KB 3/7/2002 9:29 AM
Pesticide DOC 24KB 11/6/2002 7:04 AM
PreGF0203_5 PPT 462KB 3/6/2003 3:40 PM
Thumbs DB 11KB 7/10/2006 12:14 PM
adc_072803 PPT 458KB 7/28/2003 4:07 PM
Showing most recent versions of all files.
Retrieve Options...
Retrieve Now...
Ready

EXHIBIT 13

Dumont M. Jones, Ph.D.

Proximate Technologies, LLC



What is InfoMap?

- Real-time visual evaluation of large information systems
- Information: documents, e-mails, voice-mails, databases ....
- Visual: display shows essential features; can expand analysis as required.
- Large: work with millions of documents or more.
- Real-time: info updates, changes to analysis available in seconds.

8/10/06

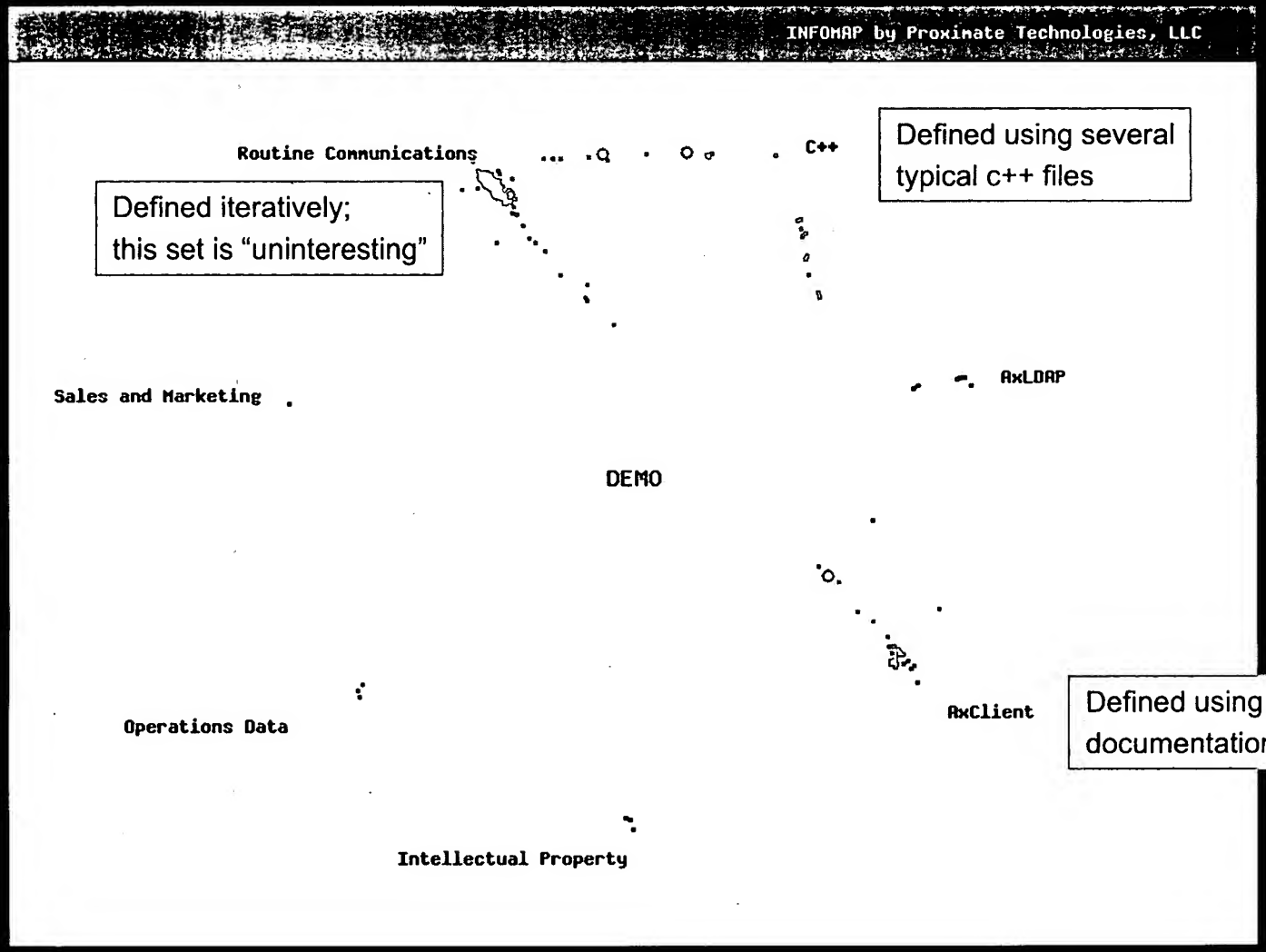
What is the value?

- Answer key questions about accumulated enterprise knowledge:
- What do we know?
- What is valuable and why? How can we leverage this information?
- How do we protect our valuable information?

How does InfoMap work?

- Rapidly fingerprint content
  - Typically a background process
- Define content-based taxonomy
  - Visual task; define sets of attractors based on content samples
- Visualize and refine taxonomy as required

E-mail overview using InfoMap



8/10/06

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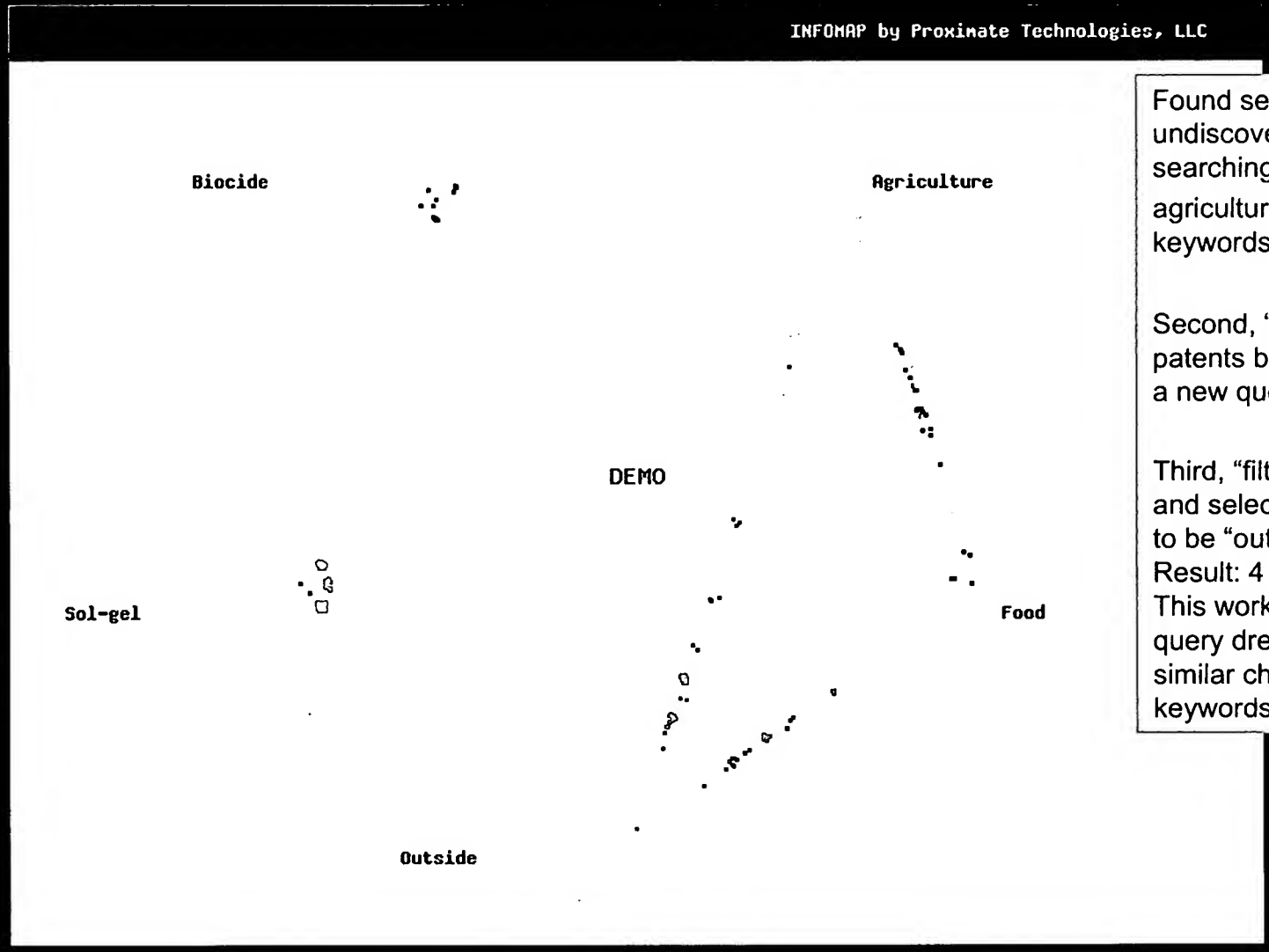

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8/10/06

Features

- Sample-based attractor definition
  - Allows focus on high-level structure, rather than rules to define a type of content.
- Attractors obey set Boolean algebra
  - Ex: remove routine communication content from the my definition of AxClient.
  - Allows "fixing" of approximate definitions later.

Features

- Attractor sets can be stored, transferred, and combined.
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- Underlying algorithms are fast and scalable.

Two general uses for InfoMap

- Monitor and visualize real-time data
  - Taxonomies relatively fixed
  - Incoming data stream is dynamic
    - Organize e-mails, voice-mails, chat logs
    - Trap accidental disclosure in outgoing communications
    - Identify unusual behavior
- Analyze/compare large bodies of information
  - Evaluate information
  - Taxonomy will develop and be part of analysis outcome.

Benefits

- Evaluate large content repositories
  - Feasible because people are good at picking examples. Even mildly relevant samples will start the process successfully.
- Monitor/protect real time data streams
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Summary and Conclusion

- Practical evaluation of large information repositories.
  - Fast: capable of real-time updates
  - Scalable: algorithms are fast and parallelizable
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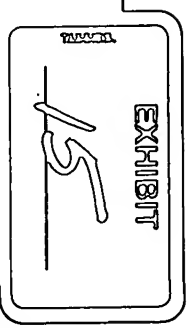
InfoMap Overview

Dumont M. Jones, Ph.D.

Proximate Technologies, LLC



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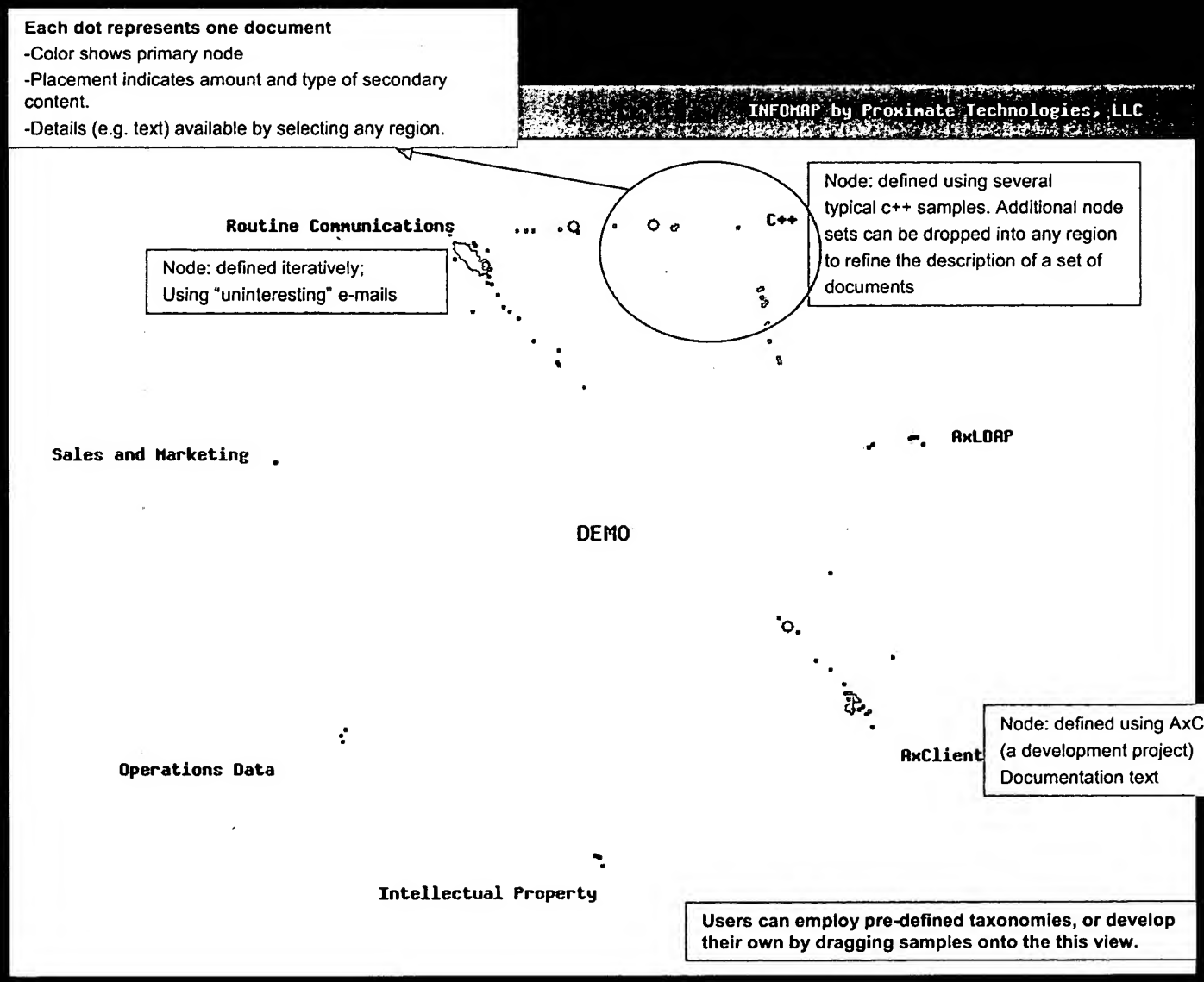

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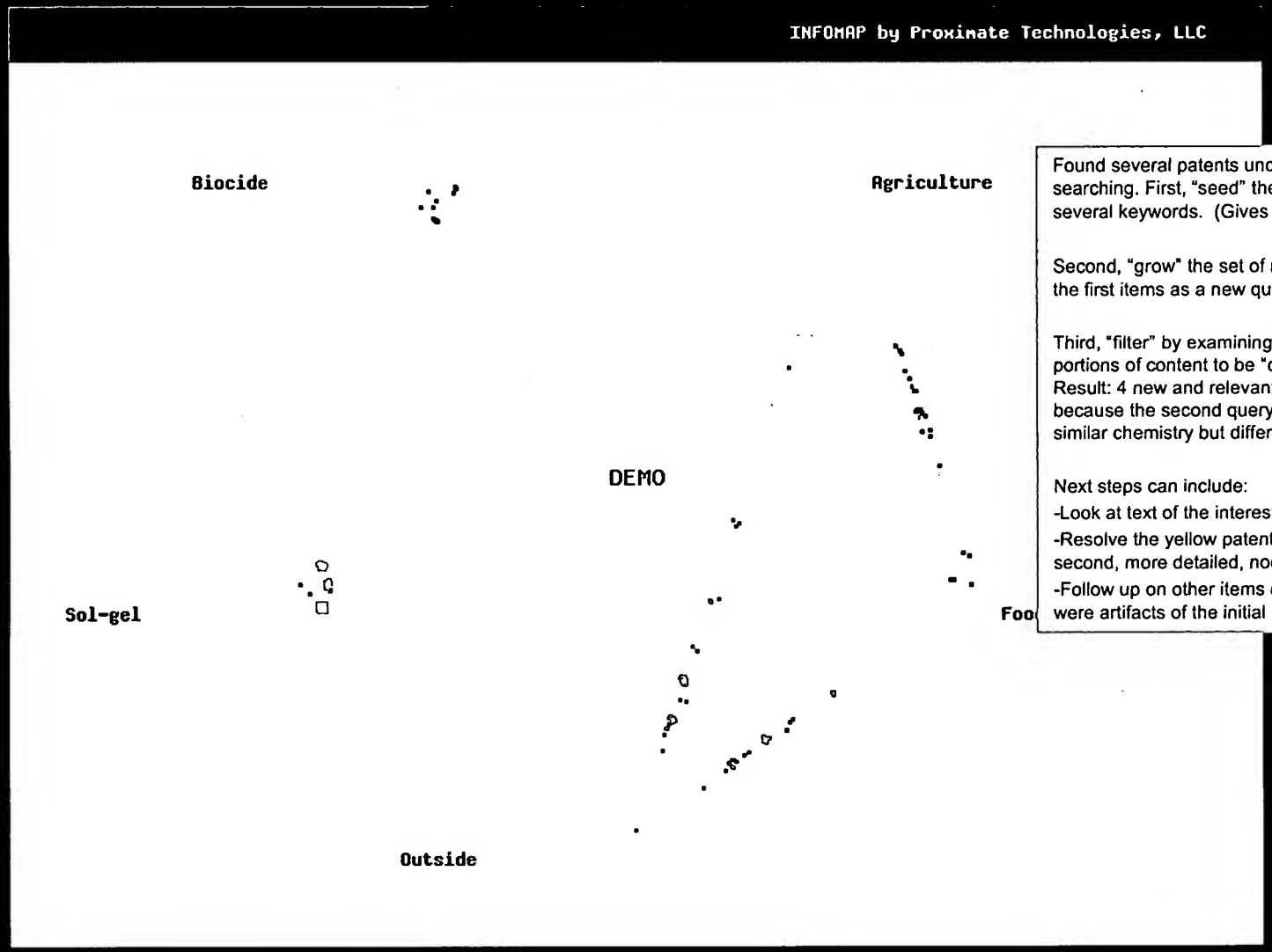

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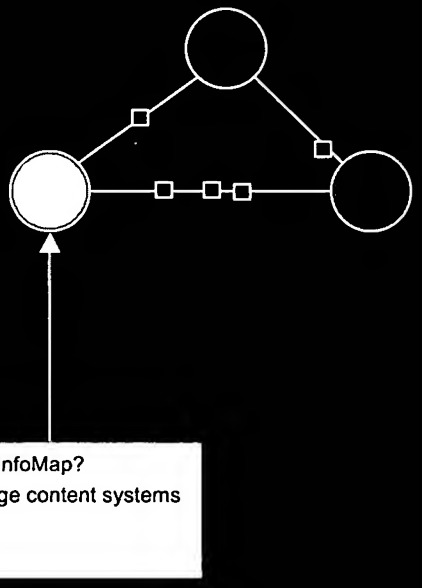
Challenge: evaluate unstructured knowledge

- Identify our intellectual property.
- Filter critical from non-critical knowledge (Content mgt projects).
- Find *all relevant* abstracts, patents, documents, to our process.
- Determine the time and origin of a document's content.

InfoMap: visual and direct

- **Map large content systems**
- **Visual**
- **Direct**



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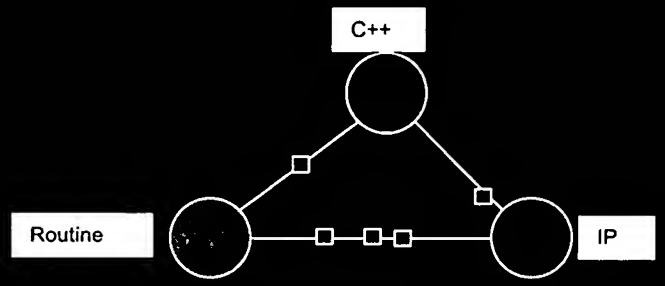

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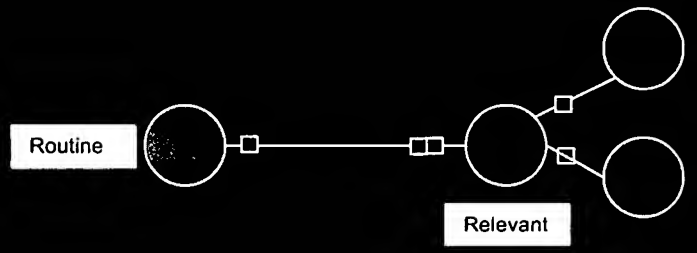

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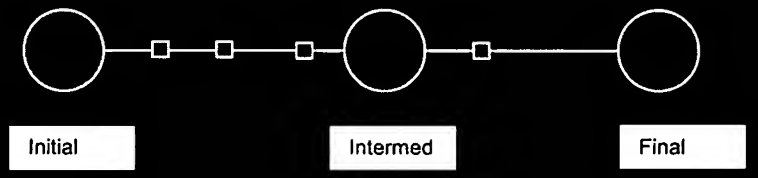

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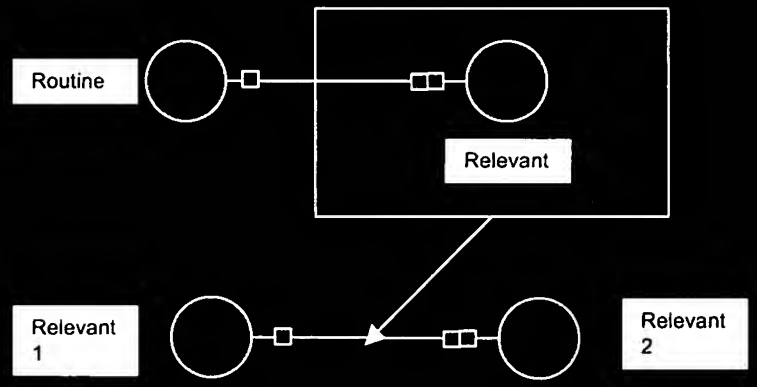

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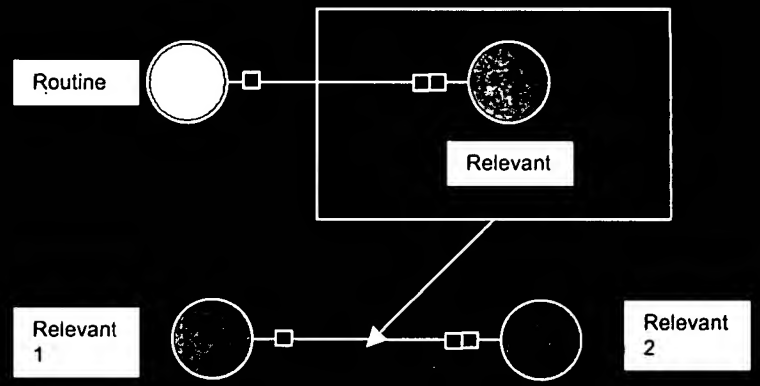

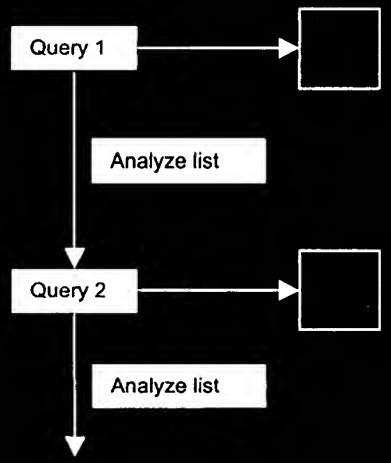

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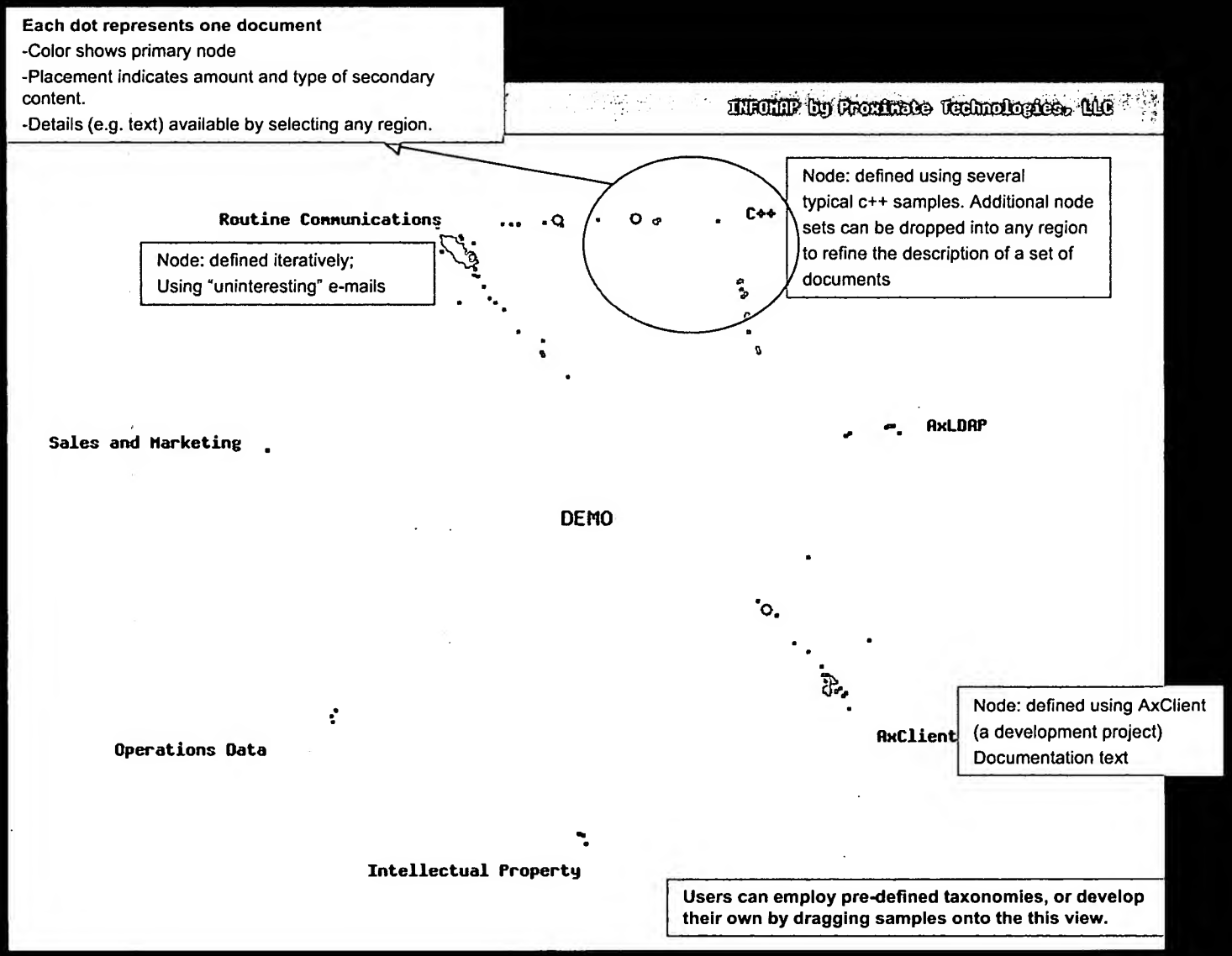

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Proximate Technologies, LLC. Portions are patent pending

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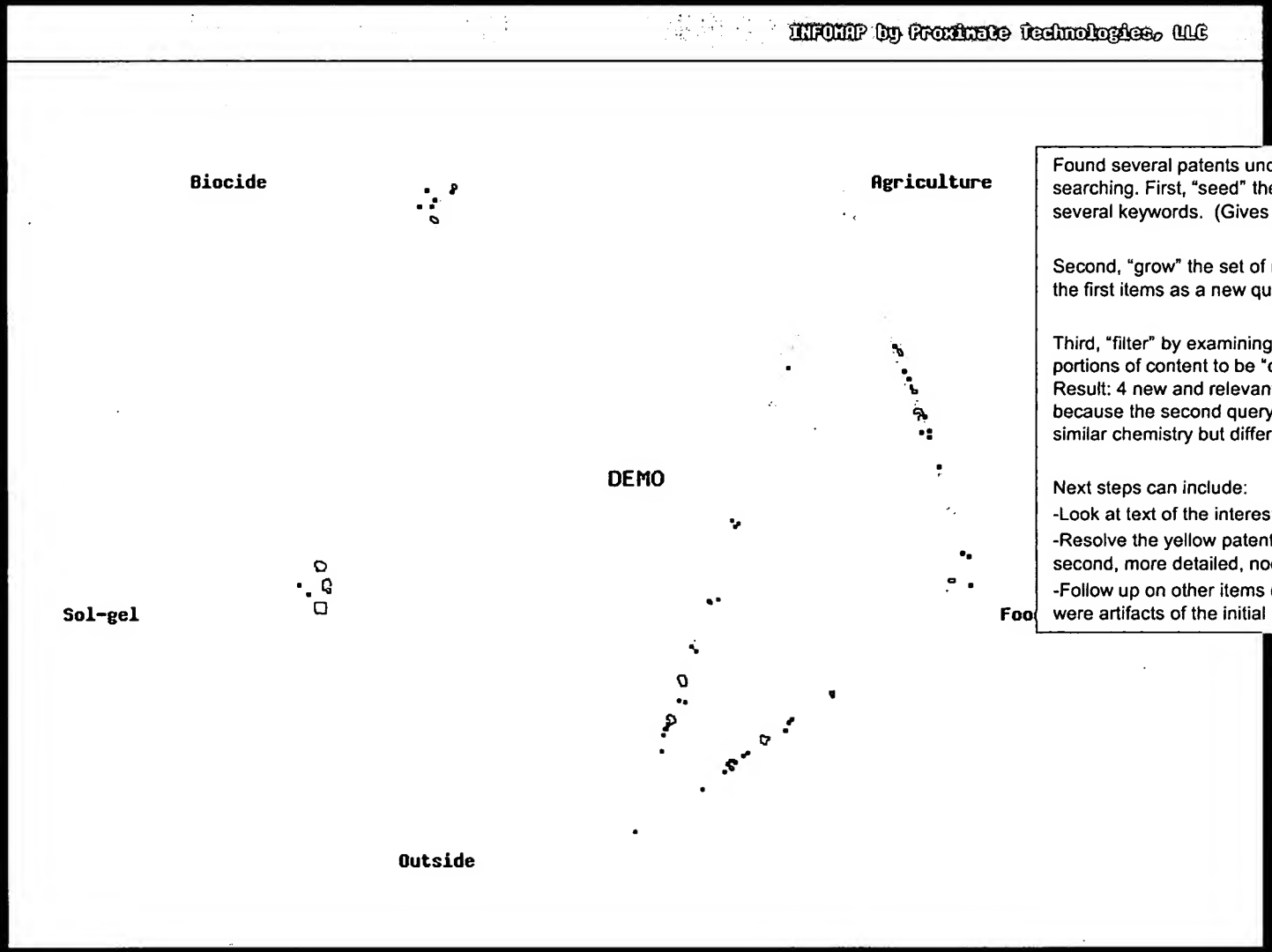

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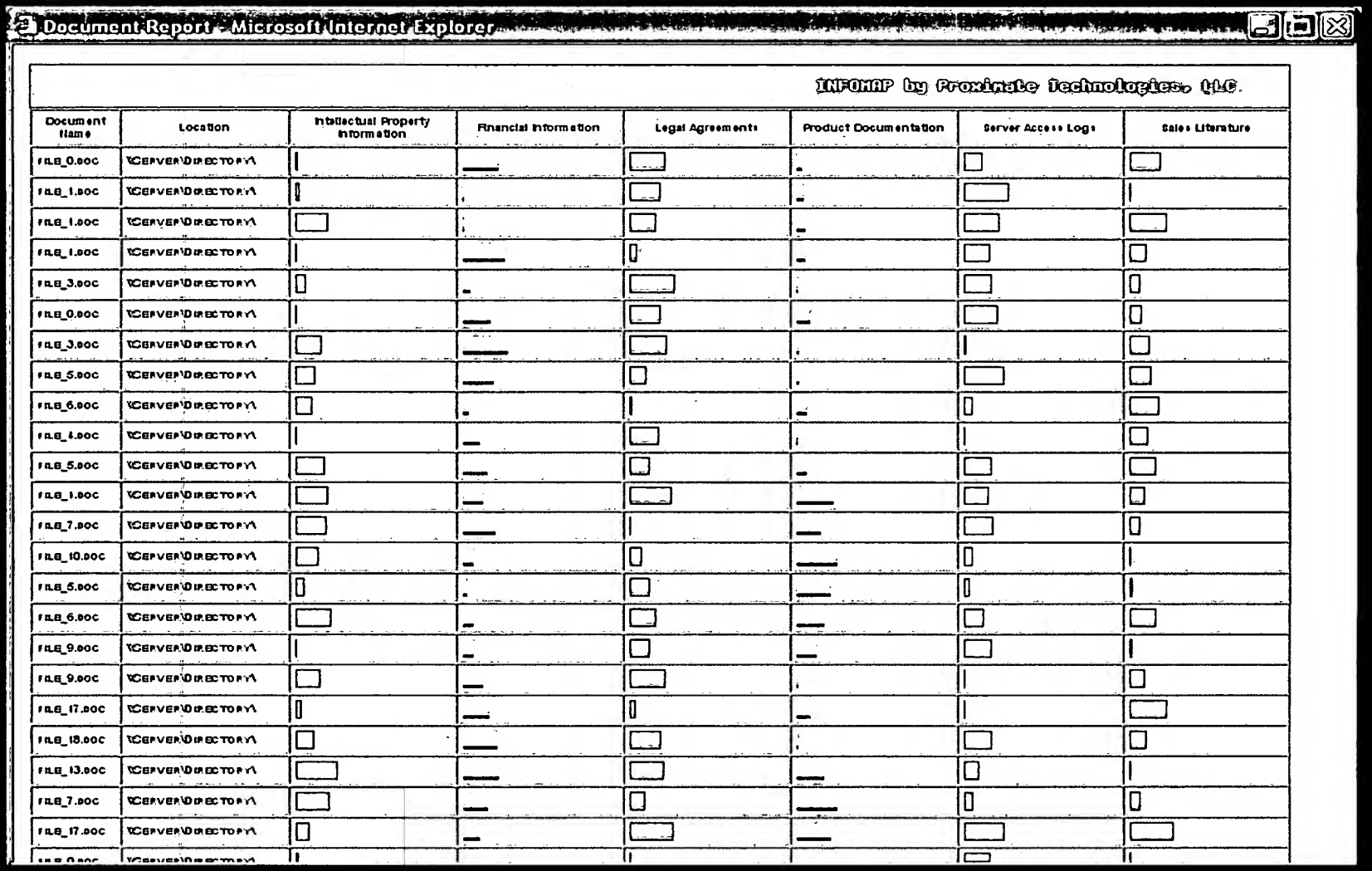

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